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ATHLETIC JOURNAL

A Professional Magazine
for the Coaches of the Country

John L. Griffith, Editor

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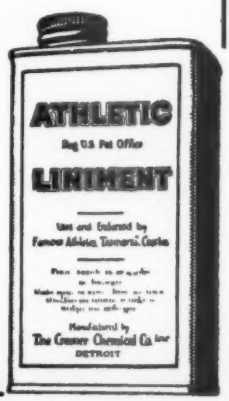


ATHLETIC JOURNAL

VOL. V CHICAGO, ILLINOIS No. 7

EVOLUTION OF TEAM DEFENSE

BY

DR. FORREST C. ALLEN

Dr. Allen graduated from the University of Kansas and then coached in some of the minor colleges with marked success. Later he was invited by his own university to return as Director of Athletics and Basketball Coach. He has the unique record of winning fifteen championships in seventeen years of coaching and of having won forty-nine Missouri Valley Conference victories out of the last fifty-one games played.—EDITOR'S NOTE.

The common conception of team work is that it applies only to the offense, when, in reality, team work shows at its best on the defense. This misconception may be attributed to the fact that in the early development of the game the players in possession of the ball were the centers of attraction while very little thought was given to the players who did not have the ball. All efforts were placed on scoring, and no attention given to the work of preventing the opponents from scoring. When players for a team were selected, the ability of a man to score was the deciding factor. All men had to be offensive players in order that the team might win. Offensive work was primary, while the work on defense was secondary.

The results of experience have changed these conditions until now the two phases of the game are given equal consideration, and in many instances their order of importance has been reversed. The offense has yielded to the relative importance of the defense very miserly and reluctantly. At first, only one player was assigned to defensive duty, leaving four men solely for scoring purposes. This one man assigned for defense was chosen not only because of his qualifications as a guard, but largely because he could not score. This shows the emphasis placed upon scoring, as well as the reluctancy of the offense to concede to the defense their equal share of credit in the team play.

Later, in the next step of the evolvement of the defense, two men were used for guarding duty while the other three players were assigned to offensive work alone. Soon, two were found to be insufficient on defense so later, three were used. Then the three-man defense gradually gave way to the four, and finally to the five-man defense of today with its different variations of execution.

This inevitable change from the shifting to the set or massed five-man defense has been made necessary through the gradual changes in the rules,—particularly those pertaining to personal contact and guarding,—and through the speeding up and complicating of the offensive play. The teams of recent years found that, with the scoring powers of the two teams equal, in order to win they must not only re-

tain possession of the ball as much as possible, but must also, when they lost the ball, develop means to prevent their opponents from scoring. At the present time, the deciding factor in the score of a game is to be found not so much in the scoring power of the teams, as in the effectiveness of the defense of the two teams.

For this reason, *defense* in basket-ball has had a consistent evolution and has really advanced more markedly than has the offense. This rapid evolution of the defensive strategy of basket-ball since its origination may be divided into six definite stages, namely: (1) the old style shifting man-to-man defense; (2) the five-man one-line defense; (3) the two-man set and three-man shifting defense; (4) the three-man set and two-man shifting defense; (5) the four-man box with one-man shifting defense; and (6) the five-man two-line set or mass defense.

It is not intended to convey the impression that each style of defense, in its evolution, has marked a complete abandonment of the previous style, for this is seldom true in the history of the evolution of anything. There is usually a gradual merging and overlapping from one stage to the next. However, the various evolutionary stages do show the drift from a no-man defense, in which all play was offensive and all players were expert scorers and unskilled guards, to the five-man defense, in which all players must be equally versatile on offensive and defensive play.

It is still possible to find styles of defense in use which were in vogue years ago, but the general tendency has been to adopt some form of the five-man defense and to abandon the earlier defensive plans.

In the old style shifting man-to-man defense, each player was responsible for one opponent. (See Diagram 1-A). The moment the offense lost possession of the ball, each player, now thrown on the defensive, picked the opponent to whom he was assigned and for whom he was responsible and followed him closely until the ball had been recovered. Usually the center guarded the center; a forward played his guard; and a guard covered his forward. It will be seen that this paired off the players and tended toward individual play rather than toward team work, although, there was a certain amount of co-

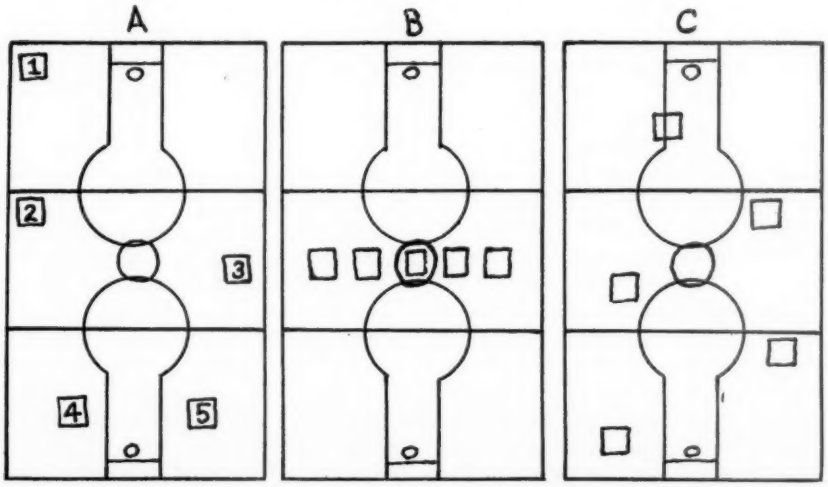


Diagram 1. This represents the first three steps in the evolution of basketball defense.

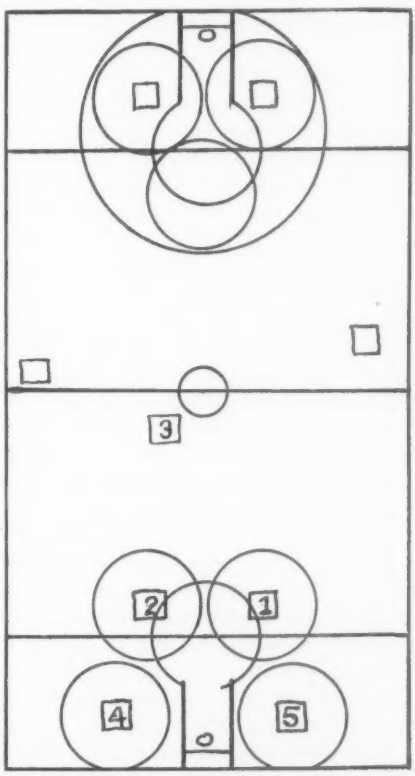
operation between players, in that one player might leave his opponent for a team mate's opponent whenever the conditions seemed to indicate such a shift. This step was the first indication of bringing five players into the defensive work and gave evidence of a complete breakover in favor of the relative importance of team defense.

This old style of shifting man-to-man defense is still used by some teams. It requires a team of seasoned brainy players to execute it successfully, because of the clever work needed to stay constantly with an opponent as he maneuvers about the court. This style is most effective against a team composed of individual stars or "old heads" who do not co-operate well in offensive team play but depend almost entirely upon their individual initiative and skill to dribble, sidestep, and pivot,—thereby evading opponents and working the ball into the basket.

Against a team using the criss-cross, shifting, revolving type of team offense that is so prevalent today, the man-to-man defense could not operate for the reason that the players executing this new style of offense are constantly changing directions so as to draw the defense out of position. This fact makes it practically impossible for such a defense to stay with the opponents; and even though the defensive players could stick to their men, the extra exertion required to chase about all over the court would exhaust them in a short time. Out of this necessity, evolved a form of defense to offset these new tricks of the offense. This first step in the defensive evolvement was the five-man one-line defense.

By using the man-to-man defense, the players could neither stick to their opponents nor prevent them from reaching the goal with the ball. As a result, the idea of building a wall across the court to prevent the offense from breaking through was devised. This wall was established out beyond the center circle so as to make it practically impossible for the offense to get a scoring shot across it.

In this style, the defense, upon losing possession of the ball, formed a line across the court, as shown in Diagram 1-B. The players were equally spaced, and their line extended the full width of the court. Their idea was to stop any passing formation from going by or through this wall, with the ball. This plan might be likened to the goal line defense in football,—a defense which is difficult to go through but easy to go over. The offense, in order to break through into scoring territory, had to break the wall. When the offense got behind the defensive wall, the ball was passed



Diagrams 2A, 2B

The fourth and fifth stages in the evolution of the defense are represented in the diagrams above.

over. Each offensive man that broke through the defense was covered by his nearest opponent or by the defensive player who was assigned to him. As soon as the men were through the wall, the style of play reverted to the old man-to-man defense. If the offense worked straight down the court, no trouble in guarding was experienced; but when it criss-crossed, zig-zagged, circled and pivoted, the players on the defensive found themselves blocking each other in their attempts to cover their opponents.

Out of this experience of inadequate guarding came the second step in the evolution of basket-ball defense. When the players in this five-man one-line defense saw that they must drop back near the goal to put up an adequately strong defense against the offense, they realized the need of stationing men back, solely, to guard the basket. This was the first indication of the necessity of using players for strictly defensive work. The two-man set and three-man shifting defense was the outgrowth of this need.

In this style of defense, the two positions in Diagram 1-C shown on either side of the goal are for the defensive players. When their team lost possession of the ball, they retired immediately to the positions shown. Their work was strictly defensive. In no case were they supposed to advance far beyond the center of the court, and any attempts that they made at scoring were from long shots. It was their job to protect their own basket while their three team mates carried on the offensive work. It was the paramount duty of the guards not to allow an opponent to get between them and the goal.

The position of these guards when they were set in this style of defense was from seven to ten feet from the end line and from fourteen to twenty feet apart, and each guard stood equidistant from a line parallel to the side lines and dividing the court in half. (Note positions on Diagram 1-C.) These guards were held responsible for the territory directly in front of them, between them and the side line, between them and the end line, and half of the territory between each other. Their three team mates, when not in possession of the ball, assisted these two defensive men by each picking an opponent and guarding him as he advanced toward his own basket. However, these offensive team mates were always ready to dart back toward their own goal the moment the ball was recovered. Still the defensive play was found to be faulty, and the search for a more perfect defense went on.

This type of play was found to be weak because the guards were required to cover too much territory. The offense found that, by sending a player down each side of the court for the guards to cover, the center territory in front of the basket was left unguarded and was an ideal position from which to score. This weakness proved the inefficiency of a two-man defense. Basketball defense needed a player to guard the zone in front of the basket, and thus there developed the fourth step in the evolution of the five-man defense.

The three-man set and two-man shifting defense, shown in Diagram 2-A, is indicated by circles representing the defensive territory for which each of the three men who were set was responsible. So long as the three men remained within their respective territories (smaller circles), the twenty-eight-foot circle was very well protected. But if they moved out of their zones (indicated by the circles) to protect their goal from long shots, their opponents would have an opportunity to slip in behind them for short easy shots. There was also a tendency on the part of the guards to follow their

(Continued on page 52)

OUT OF BOUNDS PLAYS

BY

E. J. MATHER

Mr. Mather graduated from Lake Forest University where for four years he was a member of the football, baseball and basketball teams. He coached at Kalamazoo College and from there went to the University of Michigan where he is head basketball coach and assistant in football. Under Mr. Mather's coaching the University of Michigan basketball team has each year been a championship contender.—EDITOR'S NOTE.

Out of bounds plays are built to get one player in the clear for an open shot at the basket. They are used to the best advantage when the opponents have had a chance to get set. Of course the best out of bounds play, if it can be called such, is to bring the ball in fast from out of bounds before the opposition has a chance to get set. But there are times when the defense has the opportunity to get set, then the basis of the play is either a criss-cross attack to make the defense bump themselves or a criss-cross with a block in it. Consequently, the players should be coached to meet this style of attack, as it is used by a majority of teams in the country as a basis for their out of bounds plays. The difficulty with out of bound plays is to get the men in position to work the play. If each time the ball is out of bounds in the offensive part of the floor at the end line and the same play is worked time after time, the defensive players soon solve the play. If each player has a certain play to use when he is out of bounds there is difficulty in getting the other players in the right position on the floor to execute the play.

The giving of signals for a play seems to be about the best way to get other players to know what play is to be made. But this signal method takes time and as the ball must be put in play within five seconds from the time it has been awarded to the team out of bounds, the action must be extremely fast. The method used by some teams is to have the officials hand them the ball, when that is possible. This gives the player time to give his team a signal, in most cases a hand-signal, and to have his team get set.

The question as to which man is the best one to take the ball out of bounds is a hard one to decide. Some coaches think the player nearest the ball should be the logical one. The officials may designate which player is to take the ball out of bounds but they seldom do it. Of course, if hurrying the ball in from out of bounds is the method a team is using, then the nearest player is the right one. But if a

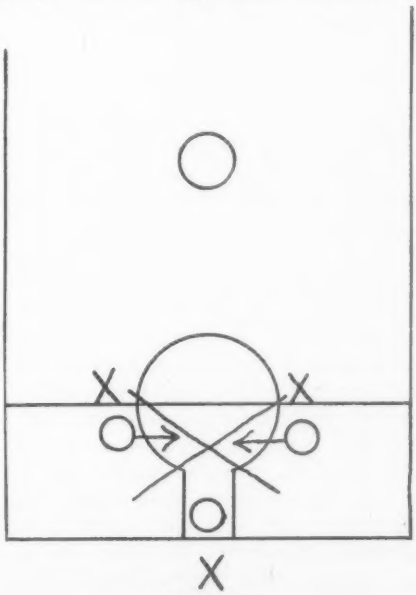


Diagram 1

team is using set plays, then a tall player is probably the best man to pass the ball in from out of bounds. He is a harder man to guard or check in passing the ball in to the court, and he has a better view of the floor so that he can readily see the team mate to whom he will throw. The hardest place on the floor to get a ball in play from out of bounds is under the backboard, as the over head obstruction renders it a trifle more difficult for the passer, especially if he wants to make a long pass towards the center

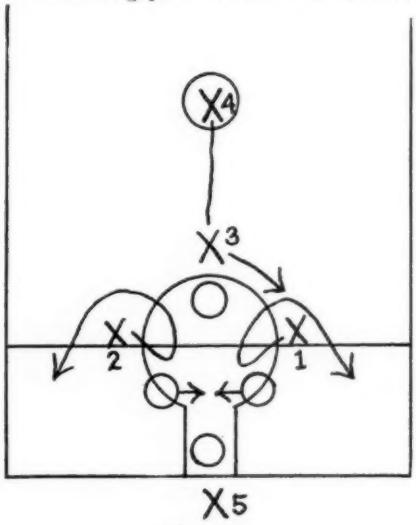


Diagram 2

of the floor to one of the guards coming down the floor to receive the pass. In this case a play involving a short pass around the basket is more to be desired.

There is a style of out of bounds play which is good for a team with tall players or for a team with a player who is very good on a jump shot around the basket and that is to throw the ball high in the air in the region of the basket and have the tall player rush in and try to bat the ball into the basket before it can be handled by the opposing players. In Diagram One, the players criss-cross in order to try to make the opponents bump momentarily in order to free one of the offensive players. In Diagram Two, with the same base for the offensive players, the same start is made but the players instead of crossing go towards the corners leaving an open space in the center into which the ball is passed; either the center or running guard taking the ball on the dead run and trying to shoot. X1 and X2 start in as in Diagram 1. They pivot toward the outside, going to the side line, thus leaving the center of the floor open. X3 drives toward the side line. X4 comes in close behind X3 but goes through the center. The ball is passed to X4. Diagram three shows a type of play which may be used both legally and illegally and which requires constant vigilance on the part of the officials or there will be illegal blocking or personal contact. Player X1 starts towards player 02 hoping to draw 01 with

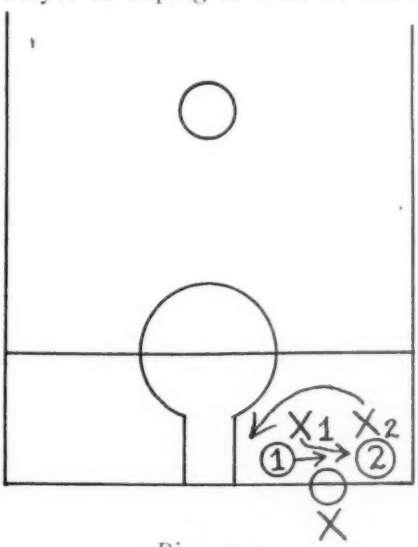


Diagram 3

him. Now X2 pivots off of the back of X1 towards the basket and sometimes gets in the clear for an open shot. If X1 should bump 02 to keep him from following X2 then there is a personal foul. Of course by changing men 01 and 02, the chances of these two men being cut out of the play are very slight.

NATIONAL INTERSCHOLASTIC BASKETBALL TOURNAMENT

BY

H. O. (FRITZ) CRISLER

Mr. Crisler was graduated from the University of Chicago in 1921. He played football, basketball and baseball at the University—winning nine letters. He is the manager of Mr. Stagg's National Basketball Interscholastic and of the National Track Interscholastic.—EDITOR'S NOTE.

Extensive preparations are being made by the University of Chicago to make the Seventh Annual National Interscholastic Basketball Tournament to be held March 31, April 1, 2, 3 and 4, eclipse the ones held in the past. The officials in charge have set before them a task of no small proportions, for the 1924 cage classic proved to be the greatest basketball event ever held in the history of the game. National interest took expression in the demand of the press all over the United States for publicity concerning the Tournament. During the progress of games two and one-half million words were sent over the wires from Bartlett Gymnasium in addition to the hundreds of thousands of words dispatched daily by the Associated Press, United News and other news services.

Thirty-one states sent representative teams to compete for the title of National Interscholastic Basketball Champion. Undisputed state champions from 29 states as widely separated as Massachusetts, New Hampshire, New York in the East to Washington, Oregon, Idaho and New Mexico in the West and from Minnesota, North Dakota and Montana on the extreme North to Texas, Mississippi, Alabama, South Carolina and Florida on the South participated in the 1924 Tournament. Other splendid teams from various states entered the spirited competition making an aggregate of forty quintets.

The teams were classified geographically into four sections with representatives of one section chosen by lot to play against teams from another section. As a result the contingency of two teams from the same section of the country competing with each other in the first round was forestalled and thus every game was a spirited intersectional contest.

Nowhere has there ever been assembled such diversified basketball systems as were displayed by the participants in the National Tournament which offers a most interesting study of the various methods of play employed by the different sections of the country. The contests presented an opportunity for coaches, players and spectators to compare and estimate the various types of play in vogue today in more than thirty states of this great nation. The tourney therefore offered a very profitable laboratory for observation and study.

Interest in the closely contested games reached a climax at the close of the final game as Director A. A. Stagg presented a natural sized gold basketball with an attractively etched inscription "Basketball Champions of the United States" mounted on a handsome pedestal to a modest group of youths hailing from Windsor, Colorado. Five boys from this little town of 1300 inhabitants located at the

toot of the Rockies with only 58 boys in the high school, proved to the basketball world that they not only deserved the right to represent Colorado—having won the Championship of that state—but also to wear the honors as National Interscholastic Basketball Champions.

Windsor's basketball record was exceptional. They participated in the 1923 National Tournament at the University of Chicago as Colorado and Rocky Mountain champions. After winning from Norfolk, Virginia and Lorain, Ohio, they were eliminated by Muskegon, Michigan. In 1924, after winning the Colorado Championship they proceeded to Chicago with 18 victories and no defeats to their credit. Warrensburg, Missouri, was the first to meet defeat from the boys of the West; Sioux City, Iowa, Panguitch, Utah, Manchester, N. H., and Yankton, South Dakota were left in the wake of the Windsor Wizards in their march to the championship. Throughout the tourney they played with great power of reserve and appeared to be clearly the class of the competition.

Yankton, South Dakota, a team which few critics conceded an outside chance as a result of their initial appearance, came through in great style and took second place. Manchester, N. H., by the use of a very good defense and by the offensive efforts of their diminutive forward Bozek, intrenched themselves in third position. Their total for five games was 110 points of which Bozek garnered 90. Northeastern High School of Detroit took third position. The sections represented by the first four place winners illustrates the uniformity in the quality of basketball as played in the United States.

A consolation tournament was conducted for those teams eliminated from the tournament during the first round. However, the class of basketball played in the consolation tournament was about equal to that in the major event, as illustrated by the fact that Warrensburg, Missouri, the consolation champions, were defeated in the first round by only three points at the hands of Windsor. Elgin, Illinois, Spokane, Wash., and Birmingham, Ala., were second, third and fourth respectively in the consolation series.

After considering the tourney of 1924 it is hard to conceive how the 1925 event which is to be played at the University of Chicago, March 31, April 1, 2, 3 and 4 can be improved. If, however, inquiries from schools are of any significance, the 1925 classic will be larger than last year. It is expected that fully 32 states will send their champions, and out of the 40 teams invited about 36 states will be represented. Within the next few weeks state tournaments to decide which teams shall attend the National Tournament will get under way. Texas is now conducting a tournament in which 800 schools are striving for the honor of representing the lone star state at Chicago.

Various state associations are making plans to send their winner. Teams are devising means whereby they can finance the trip to Chicago should they receive an invitation. Communities have been generous in assisting teams to enter and have made the trip possible as a tribute to the boys in return for their loyalty, fighting spirit and true devotion to the ideals in athletics which can only bring success.

The short loss of time in school is more than offset by the educational value of the trip to Chicago, by the association and

(Continued on page 54)

Supervision of a Team Through a High School Elimination Tournament

BY

WALTER E. MEANWELL, M. D.
Coach of Basketball at the University of Wisconsin.

Dr. Meanwell is one of the few really great basketball coaches. His teams have been first, or tied eight times, second once and third twice, in a total of eleven conference seasons. In 1918-19 he served in the army of the United States with the rank of Captain.

The high school basketball coach has two very different problems to face in the conduct of his team through its entire playing season. First he has the regularly scheduled series of games, most of them on week ends, with seldom more than two in any one week for a total of from twelve to eighteen games. Second, at the close of the regular schedule he may have to conduct his team through one or more elimination tournaments during which three or five and sometimes even more games are played in two or three days.

The conduct of the long schedule of the regular season requires good judgment as regards the amount and character of practice employed, diet, training regimen and the like. The problems of the regular season are, however, fairly well understood and rather well established principles are quite generally followed. The program for the short, intensive period of the elimination tournament, on the other hand, has not been agreed upon so definitely and there are many conflicting policies employed by the coaches.

In my connections annually with the conduct of state high school tournaments and with summer coaching courses in universities, since 1912, I have heard the problems of the coaches engaged in elimination tournaments much discussed, and from these experiences I will discuss here the subjects on which the most diversity of opinion as to procedure existed.

The preference expressed herein for this or that method, primarily represents my personal view and is given as such rather than as being an authoritative opinion. Many will hold contrary views and it is remarkable how in athletics so many varied styles of play and methods of training can all produce successful results. Usually, however, there are logical common sense bases to repeatedly successful methods, and such bases are discussed in connection with the measures advocated here.

(1) The amount of work especially, of scrimmage, that should be given the players in the week preceding the tournaments should be carefully considered. The practice should taper off from day to day as the date of tournament play approaches. Good physical condition has been secured in the long period of the regular season. It requires but little work to retain wind and staying power after they have been developed. To this end, a total playing period of one hour is very ample in the days preceding tournament play. Of this one hour period not more than twenty minutes should be spent in actual scrimmage. Scrimmage is employed to fix the reactions employed in team play. These have already been se-

cured in the regular season. Therefore, long scrimmage, with its tendency to exhaust the players and with its danger of accident, should be done away with. Against this lessening of the time of play and of actual scrimmage should be set a speeding up process, by which every activity engaged in is put through at top speed. Speed and accuracy should be demanded and every one should be "on his toes." Once the shooting and fundamental period of thirty minutes, the scrimmage period of twenty minutes and the ten minute free throw period is over, the team should be hustled out of the gymnasium. The aim should be to secure a gain in weight, strength and speed in preparation for the trying days of tournament play, rather than a great improvement in team play through much scrimmage.

Should accident or other cause deprive a team of a first string man, it is advisable to practice team play, in scrimmage, for a much longer period, of course. The one hour practice, with not more than twenty minutes of scrimmage, is advocated for intact teams which have their style of game well learned.

The day before the tournament should be without practice of any sort or at most there should not be more than thirty minutes' work, without scrimmage; at this time basket shooting and running through plays without opposition should consume most of the practice. In brief, the days directly preceding a tournament should be spent in speeding up passing, improving the shot, and in maintaining the team work already learned, on the one hand. On the other, these days should be sufficiently relaxing by virtue of reduced work, that the weight, strength and nervous force of the players may be recuperated. Reserve force should be built up for the tremendous strain of playing several games a day without ample rest between them.

(2) The diet of the players in the period just preceding tournament play should be a comparatively rich one. Extra meals are of advantage. Plenty of butter, sugar and milk even if such is taken in the form of desserts, are helpful in providing energy for the hard days of tournament play. Meat is of less value, in this connection, than is commonly supposed, and the old time training diet of great quantities of rare meat has gone into the discard. A normal and moderate amount of meat and eggs, such as will naturally be provided for growing boys in the average home, is sufficient to replace the tissue loss that the practice period entails. The carbohydrates and fats, usually provided in the form of potatoes, bread, butter and sugar, are the food constituents which provide the energy, in the main, to run the body machine during exercise. Therefore, increase the intake of milk, sugar and butter and keep the meat intake at the usual, normal amount. The old idea that milk and butter "cuts the wind" is fallacious and is a throw back to the days of the old time ring champions. It was the usual custom of the old time pugilists to dissipate freely between contests. They naturally became much overweight through lack of exercise and overindulgence in food and drink. When they trained for the next bout it was often necessary, we read, for them to reduce thirty or more pounds, before they were again in condition. This reduction in weight was secured in part, by strict dieting, in whith fats, sweets and fluids were restricted to a minimum. The amount of meat given to these men to replace the starchy foods withheld from them was tremendous. Thus there have come down to the present generation of youthful, clean living school athletes, many of the superstitions and fallacies of athletic training methods, especially as to diet and to "rub down dope." The early athletic

trainers and the so-called "Professors of Physical Culture," were almost all recruited from the ranks of professional boxers and foot racers and quite naturally they continued the practices to which they were accustomed.

Fresh vegetables and especially raw fresh fruits, as dessert, are very valuable because of their content of vitamin and other constituents. Salads of uncooked foods, as lettuce and cress, should be included regularly. Water should be taken freely, especially to aid in the elimination of waste products in the body. The restriction of fluid intake so commonly indulged in may very easily result in harm to the body. In brief then, a liberal varied diet, ample in amount and rich in sugars and fats, is advisable in the week preceding the tournament.

(3) During the actual tournament the chief thought of the coach should be to conserve the energy of his players in every reasonable way. Arriving at the place of play as directly and as comfortably as possible, the slogan of the day should be, "Keep off your feet." Often one sees a team going out sightseeing on the day of a game for hours at a time and indulging in recreative activities which burn up much needed energy.

Walking miles on hard sidewalks and attending entertainments are very fatiguing activities. Players frequenty act as though they possessed two stores of energy—one for recreative purposes and an entirely separate one for use in basketball only. The energy spent in visiting a campus full of fraternity houses comes from exactly the same source that provides the energy to pivot, pass and shoot. Once that store of energy is used up, in part, by purposeless activities, it requires more food and a night of sleep to replace it. Many a close game has been lost by attendance on energy consuming and unnecessary activities engaged in earlier in the day.

Some relaxation is necessary and something should be done to relieve the minds of the players of too much thought about the game. To this end, a moderate walk of fifteen to thirty minutes in the open air, with the entire team including the coach participating is advisable. The team "clown" should be at his best on this occasion and the affair should be made one of laughter and jollity. This walk is well taken after meals—and after it, the rule should be "every one in his room." Rest is of equal importance to food in a several game tournament. A light lunch after the last game in the evening and then bed at the earliest moment, should be ordered. The boys should remain asleep in the morning as long as possible, allowing for a late breakfast. Arousing the team at six or seven in the morning to walk to the gymnasium and to practice prior to the tournament play is a useless and detrimental expenditure of energy. The appearance and condition of the court when free from spectators and without artificial light, is entirely different from what it will be under actual game conditions. If a team desires to run through plays on the strange court because it differs in size from the courts customarily used, that is a logical procedure. It is useless, however, to spend the time shooting goals. Baskets are all the same height and circumference and the actual experience of shooting at the strange goals under conditions of vacant seats and of lighting which will not prevail in the actual games, provides little advantage to the team. The extra work, the bath and the necessary excitement of the occasion, are detrimental in a situation where steady nerves, stamina, staying power and ability to play over and over again, are as great factors in success as is basketball skill. There is far less to be said against this

(Continued on page 48)

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John L. Griffith, Editor

HAVE ATHLETICS REACHED THE PEAK

The question is frequently asked whether or not school and college athletics have reached the peak of their development. Twenty years ago in a certain Western Conference university when a stadium was being built some of the men on the faculty of the institution in question suggested that the building plans should be abandoned because in five years there would be no intercollegiate athletics. Today this stadium is about to be replaced by a much larger and more pretentious one. If anyone assumes the role of a prophet he runs the risk of being ridiculed. However there are certain things that judging from the past make for permanency in athletics and other factors which tend toward the disintegration of the same.

A quarter of a century ago the leading athletic sports were baseball, boxing, wrestling and track. Football was just getting a good start in the schools and colleges, basketball was unknown and track and field athletics were conducted usually at Caledonian games and in the form of hose races and at picnics and fairs. The schools and colleges were just taking up track and field athletics as an interinstitutional sport. Croquet was a rather popular pastime and tennis was played more or less as a game for the elite.

In the last twenty-five years golf has become the leading game in the United States as judged from the standpoint of the numbers who compete and tennis, baseball, football and basketball have crowded to the fore. There are two ways of judging the success of any given sport. First, in terms of the numbers who play, and second, by the standard of the paid admissions at the fields and parks. If we are to judge the permanency of a sport from the standpoint of the numbers which participate in the games it is clear that boxing and wrestling are not growing very rapidly in favor while all of the games that are listed as major sports in the schools and colleges show a steady and continuous growth. As regards baseball it still thrives as a professional game in the major leagues but it is not succeeding as judged from the reports of the minor leagues or as a professional or semi-professional sport in the small towns. This coming season eighty per cent of the colleges will support baseball teams and sixty-six per cent of the high schools. From this it might be deduced that baseball is not losing ground as an amateur sport under the administration of school and college authorities.

While the schools and colleges are practically all committed to the idea that all of the students should participate in athletic activities, yet it is probably safe to say that not half of the boys in the secondary schools and universities are as yet seriously engaged in

athletic sports. This being true it might be suggested that athletics will grow in our educational institutions until almost all of the young men enrolled in these institutions will be engaged in some form of athletics or other.

In conclusion one need not be a prophet to suggest that judging from the past, sports that will endure are those that are administered by responsible persons and are conducted on an amateur basis. In other words, so long as the school and college authorities continue to administer athletics according to the present accepted standards and continue to promote "athletics for all" programs we may be sure that they will continue to grow and prosper.

TWO CONCEPTIONS OF OBJECTIVES

The purpose of athletics is to win contests. When a man accepts a position as an athletic coach his sole aim and endeavor should be to accomplish results in terms of victories. It may be necessary to sacrifice a man now and then to achieve success but this does not matter—the individual players are but pawns who should be sacrificed, if necessary, to bring the winning score. If officials can be intimidated it is legitimate to threaten them in the hopes of getting the majority of the close decisions. Gentlemen's agreements regarding eligibility rules are "scraps of paper." It matters not whether the rules permit the hiring of players; if a championship can be gained by playing hired men in amateur contests they should be used because the big thing is winning. This is one conception of the objectives of athletics.

Then there is another view held by some regarding the purpose and aims of athletics which is that the coach is an educator whose first responsibility is to the boys who play, and his second responsibility is to the institution he represents and to society. The men who have this conception of athletic objectives believe that through the medium of athletic activities qualities of character not tested by either a physical efficiency, or a Binet test, may be stressed and developed. They believe that athletes should learn to play their best, to carry on when punished, or when behind in the game, or the race, and to know the meaning of sacrifice. They further believe that all games should be honorably contested, that the rules should be scrupuously observed, and that gentlemen's agreements regarding eligibility and codes of ethics should be respected. The coach who accepts this view of athletics is committed to the task of improving citizenship.

A POOR SPORT

1. Alibis his defeats.
2. Takes unfair advantage of his competitors.
3. Shoots game on the "set."
4. Bombs fish.
5. Does not play the game according to the rules.
6. Bullies opponents and officials.
7. Violates eligibility agreements.
8. Is selfish—"Wants all of the best of it."
9. Does not do his best.
10. Disregards the rights of others.

FREE THROWING

BY

RAY HABERMANN

Winona State Teachers' College

Ever so often one picks up a paper and notes where such and such a team lost a game because of missing five out of seven free throws, or something to that effect. One will also see other accounts where a team won the game by their ability to make free throws. If a game is lost because of poor free throwing, the coach then starts to pay more attention to it; but as long as the team is winning, the chances are this phase of the game will be overlooked.

During the past two years we have kept a very close check on our free throwing and have found that practically twenty-five per cent of our games are won by its use. That being the case, it certainly is important to pay a great deal of attention to the matter.

Now that every man on the team has to be an expert with the free throw it takes a great deal of time for practice, but not so much as one would think if the practice is well organized. Many coaches tell you

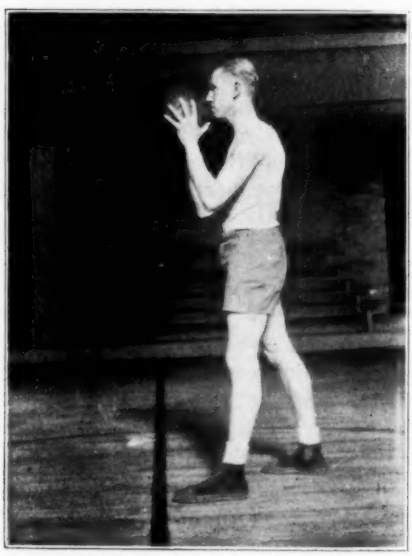


Illustration 1

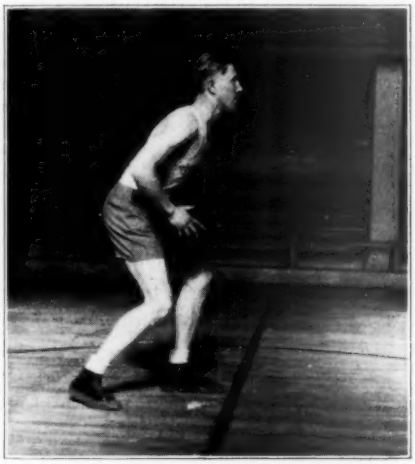


Illustration 2

to have your men thrown one hundred free throws each day. We have tried that system and found one hundred to be too many; the men grew tired, lost interest, and their accuracy fell off. Then we tried fifty per day and found practically the same result. I happened to note when on the fifty per day schedule, that all the men did fairly well on the first twenty-five. We then switched to twenty-five throws per day and all the men had a higher average in a short time. Each man became a sixty per cent shot on free throws. We kept our chart as usual, putting down each day the number thrown and working on each man until he could throw successfully at least sixty per cent, in practice. We found that by paying strict attention to each shot and by not having the men shoot too much, that interest was maintained, better results achieved, and that practically every man shot his sixty per cent in games as well as in practice.

We have also found that it does not pay to have all the men shoot

Illustration 3

their fouls in the same manner, for men are anatomically different. We had two men who did not seem to have a fine sense of coordination in the hand and arms and were poor and inaccurate when shooting free throws by the underhand method. They were changed to the chest shot or overhand method, and improved at once, and are now as accurate as any of our other players.

Illustration One shows the starting position in the overhand method. The player comes up to make his throw; does not look at the basket, but makes sure that his forward foot is an inch or more from the foul line. A number of close games have been lost from time to time by a player not having his throw count because of his foot being on the line. So it is better to know that the forward foot is right before doing anything else. The foot which is back should be wide enough so that the player feels well balanced, and back far enough so that the toe is about even with the heel of the forward foot. This seems to be the best stance for a follow through shot. The stance in which the feet are opposite has not given good results, and could not be used in the overhand method.

After seeing that the feet are placed correctly, the ball is brought up so that it is in front of the player's face as shown in Illustration One, and he looks directly over it and at the center of the ring. This gives him good concentration and good aim. The ball is then brought down slowly until it comes to the position shown in Illustration Two, and as the ball goes down the knees bend slightly. The ball is then brought up in front of the chest as in Illustration Three, and is released as for the chest shot, with a

Illustration 4

quick straightening of the legs. The arms follow through as far as possible. This causes a leaning forward and a lifting of the rear leg as shown in Illustration Four. This follow through is very important, and the fingers should be kept on the ball as long as possible. The thumbs are placed back of the ball, and are the last to give it impetus, the fingers being the guiding factor. The turning up of the fingers and

the depressing of the thumbs just as the ball is going up past the face causes that slow necessary backward english which is so important for a successful shot. The english should be just enough to guide the ball properly and give it a little cut-down if it should hit the backboard or the back of the rim.

The underhand method of shooting is by far the more natural and for free throwing it is a better way of shooting than the overhand or chest method. Fewer muscles are used as well as finer ones, and the fewer the muscles used the more chance there is for fine coordination and perfection of execution.

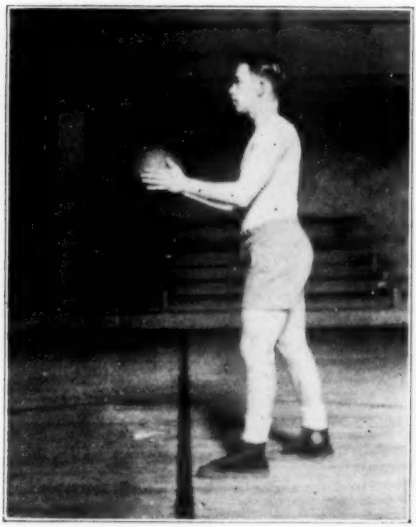


Illustration 5

The stance in the underhand shot is the same as in the chest shot, the toe of the back foot being about even with the heel of the forward foot; the feet far enough apart to give proper balance.

The first position is shown in Illustration Five, and should be taken after the player is sure that his foot is not on the foul line. Then the player should look at the center of the basket to get his aim. The ball is then lowered as in Illustration Six, and the knees go down to a quick quarter squat and up as the arms are carried outward and upward toward the basket. The fingers remain on the ball as long as

Illustration 6

possible, the three middle fingers being the last propelling force and the thumbs mere guides. If the follow through is made properly the rear leg will have to be raised as shown in Illustration Seven to keep proper balance.

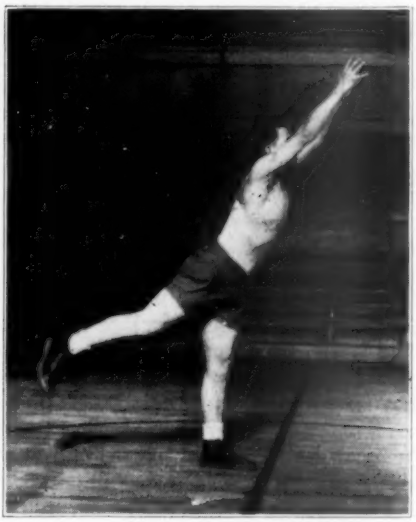


Illustration 7

It has been found that it makes no difference whether the lace is up or down; but that the english has

(Continued on page 45)

A Year's Course in Physical Training for High School and College

BY

ROBERT NOHR, JR.

This is the sixth of a series of articles by Mr. Nohr now appearing each month in the Journal. The lessons suggest a course of training that is suitable for either school or college students. Mr. Nohr is an instructor in the School of Physical Education in the State Normal College, LaCrosse, Wisconsin.—EDITOR'S NOTE.

One of the most difficult problems in the administration of physical training is the matter of grading and testing. Much pioneer work is yet to be done in working out methods of measuring both physical growth and development and those mental and moral qualities we claim physical training gives the student.

As physical training at the present time is being considered as an essential part of any school curriculum, pupils should be given credit for the work and colleges and universities should demand entrance requirements from high school students before entering. Students should be enrolled in classes of the same ability as in any other subjects and some definite means of measuring the accomplishments of the aims in physical training must be used from time to time to determine their classification.

In the gymnasium the measuring of physical proficiency is not such a difficult problem. Briefly, it consists of a group of activities which test the physical development and the growth in strength, agility, and coordination. A scale of points based on performance in each event will show where a

Group A

PHYSICAL PROFICIENCY RECORD

State Normal School

La Crosse, Wis

Rank..... Record of ..... Date.....

	1st Trial	2nd Trial	3rd Trial	Best	Points
1. Leg raising					
2. Pull-Up					
3. Push-Up					
4. Climbing					
5. Standing Broad Jump					
6. Medicine-ball Far-throw					
7. Standing Hop, Step and Jump					

Illustration 1

Total Points.....

student is weak or strong and a final average of points will classify him as to grade. Taking the mean or average performance as a basis for grading up or down, a good system of estimating purely physical proficiency is worked out. As the number tested increases, this mean performance will become more fixed. Each school should work out its own system of points and resulting grades as the average performance will vary a great deal depending on the type of students, hours of work, and methods of instruction. The tests themselves should offer splendid physical training if practiced as regular class work.

A typical list of such activities for testing is shown in Illustration One.

1. *Leg raising.*

The activity starts from a hang on the horizontal bar, stall bars or high ladder. The legs are raised horizontally forward and completely lowered for one execution. The back should bend as little as possible and the main movement limited to the hip joint. Illustration two.

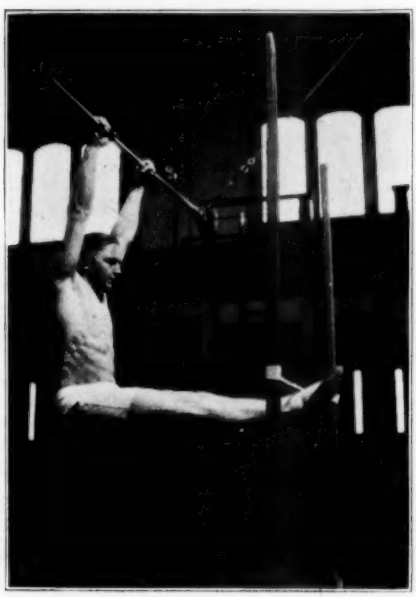


Illustration 2
Leg raising

Illustration 3
Pull-up

2. *Pull up.*

The activity starts from a hang on the horizontal bar or any other apparatus from which a hang may be taken. The chin must be raised above the bar and the body lowered to a straight arm hang for one execution. Illustration three. The hands should be in the under grip position and not upper as in the picture.

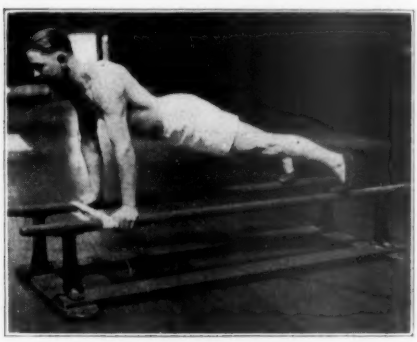


Illustration 4
Push up. The support lying position.

3. *Push up.*

The activity starts from the support lying position on the parallel bars or on the floor. The bars provide for better execution. A piece of tape is placed in front of the hands. Illustration Four. One execution consists of lowering the body until the chest touches the tape and returning to the support lying position. Illustration Five. *Note.* In One, Two and Three, the number of successive executions constitutes the record. There should be no rest periods between executions.

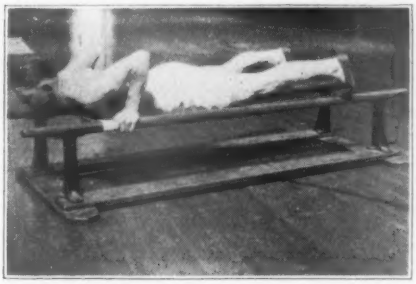


Illustration 5
Bending arms from the support lying position

4. *Climbing.*

The activity starts from the stand with the grasp high on the pole or rope. In climbing the legs may be used or if the class is advanced, the legs may be raised forward using the arms only. The performance is measured by the number of seconds used in climbing a prescribed height. Illustration Six.

Illustration 6
Climbing

5. *Standing broad jump.*

A low spring board or a take off block placed against the wall or some apparatus offers a splendid take off. Illustration Seven. Use a mat which is securely fastened or execute without a mat. This activity is well known.

Illustration 7
Standing broad jump

Illustration 8
Medicine-ball throw for distance

6. *Medicine ball throw for distance.*

This may be executed in a free

style or over the head. In throwing over the head, the ball is raised back of the head with the elbows bent. The trunk may bend backward. The throw is executed by a sudden extension of the arms and trunk. The feet must not leave the floor. Illustration Eight.

7. *Standing hop-step and jump.* Use a take off as in the standing broad jump. The activity starts by leaping off both feet (from a stand) onto one foot, stepping forward with the other and then jumping forward on both feet to a stand. Every effort should be made to execute the three elements fluently and rapidly for distance.

All records are now transposed into points. The instructor should work out his mean performance and a schedule of points above and below that. The most simple system is to give points from 1 to 10 and additional points up to 15 for exceptional records. The mean should in that case be around 8 or 8.5. The final average may be worked out in the same manner as in the individual events and a grade given for each student for the entire test.

A typical final result might be as follows:

Points	*Grade*	
70 or above	100	A
65	95	
60	90	B
58	85	
56 mean	80	
54	75	C
52	70	
50	65	
45	60	D
40	55	
35	50	E
30	45	
25	40	

LESSON XII

Tactics

1. Facing and halting while marching forward. While the class is marching forward in the long front rank give the command, "Face left (right) and—halt." When executed left, the command "halt" is given as the left foot strikes the floor. Step right forward facing left and close right to the left. For execution right is opposite.

2. Review combination of forming and wheeling.

3. Review Free exercises alternated with marching.

Free Exercises

1. Rise on toes and bend arms for thrust—1. Bend knees deep and thrust arms sideward—2. Return—3-4.

2. Place L. foot backward and swing arms fore-upward—1. Raise L. knee forward and lower arms forward—2. Return—3-4. Same R.—5-8.

3. Bend upper trunk backward and swing arms fore-upward—1. Lower trunk half forward and place hands in rear of head—2. Return—3-4.

4. To a side stride-stand-jump. Turn trunk L. and bend arms for thrust—1. Bend trunk forward and thrust arms forward—2. Return—3-4. Same R.—5-8.

5. To a stand-jump. Raise L knee forward and raise arms forward—1. Straighten L. leg backward, lower trunk half forward and move arms sideward—2. Return—3-4. Same R.—5-8. On command only.

6. Jump to a squat stand hands on floor—1. Stretch backward to a support lying position—2. Bend arms and raise L. leg backward—3. Return—4. Same R.—5-6. Jump to position in two counts—7-8.

7. Lunge L. sideward and swing arms sideward—1. Change knee bending bend trunk right and place hands in rear of head—2. Return—3-4. Same right—5-8.

8. Alternate 8 running steps in place (raising knees high) with 4 side stride jumps in place.

(Continued on page 50)

BASKETBALL AND BASEBALL

By
JAMES ASHMORE

Mr. Ashmore was a famous athlete at the University of Illinois in the early nineteen hundreds. Since leaving Illinois he has coached at Millikin University, the University of Colorado, the University of Iowa and DePauw University. He has consented to edit a section in the Journal devoted to baseball and basketball. If Journal readers have questions regarding any phase of these two games they are urged to write Mr. Ashmore. Your name will not be used in connection with the question or answer.—EDITOR'S NOTE.

Tournaments

This is the time of the year when the High School basketball tournaments are being played. Conducting a basketball team through a tournament is a trying ordeal on a coach. The players are naturally more keyed up over a tournament than they are over a single game even though that game may be against their greatest rival.

There is much confusion incident to a tournament. The several teams are coming in and must be quartered. The inevitable fan is present wanting the inside dope from the coach or the players. Then there are the crowds of noisy partisans at the games. All of these things tend to excite the players unduly. The coach would do well to keep his players away from as much confusion as possible. He should get the players located in the quarters they are to occupy during their stay as soon as possible. The coach or the team manager should be sure to get all the necessary information relating to the tournament. Information regarding the playing schedule should be obtained as soon as possible and the coach should find out when his team plays its first game. Further, the coach should learn in advance the location of the dressing room his men are to use. To have the proper diet for the men arrangements should be made with the hotel or restaurant proprietor in advance.

It is not advisable to allow the players to watch the games. The coach can watch the play of future opponents and instruct his players according to the things he learns about their tactics. If the players watch their future opponents they are very likely either to exaggerate or minimize their ability.

The coach may by applying his mind to the problem make tournament play less hard on his men in a number of ways.

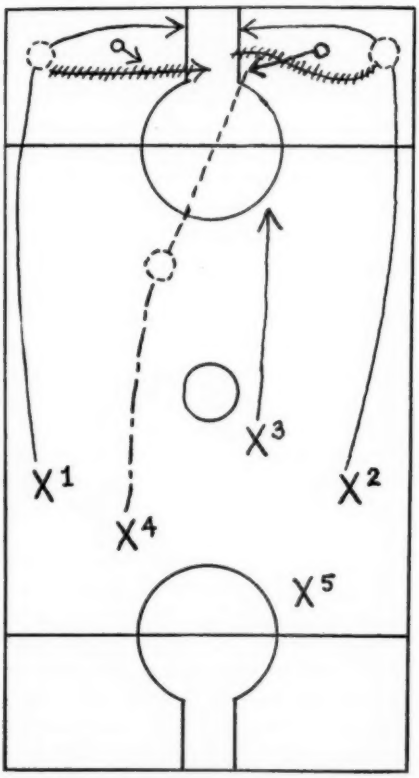
These few suggestions will indicate that a coach should minimize the nervous tension on his men when they are in a tournament.

Strategy

A state college basketball tournament was once won by a team in which a piece of strategy was perhaps the deciding factor in the team's success. The schedule of games indicated that in order to win, the team's endurance would be tested as severely as its playing ability. The coach with this in mind started his second team in the first game. He allowed the second team to play the entire first half even in the face of much negative head shaking by other coaches. His second team finished the first half three points behind. The first team had little trouble in winning the game in the second half. There is little doubt that his team won the tournament, because the coach saved his first team by keeping them out of one-half of the game. This all happened long before Mr. Rockne of Notre Dame established the style by starting his second team in football games. At that time the substitu-

tion rule did not allow a player to return after he had been withdrawn from play. Under the substitution rule as it now stands a coach may make changes with less risk, than formally since the withdrawn player may be returned if the change proves to be detrimental.

It was observed that a certain coach usually withdrew his star forward five or six minutes before the first half ended. When asked why he did so, he explained it as follows: I know Blank cannot go at top speed for a full game. By withdrawing him five minutes before the intermission he can be sponged off and can get fifteen minutes' good rest. He does the team the most good when handled that way. Of course, I have a good defensive player to substitute for him. If we are as much as five points in the lead, I always give him an extra five minutes' rest, just before the intermission. Our offensive effectiveness depends upon Blank so it is important to have him work at top speed. These two incidents indicate that any coach by some study may employ tactics to the advantage of his team.



This diagram shows a pass being made by the guard X4 to the forward X2 who cut in the rear of the defensive guard O. The pass was intercepted by the guard. Had the forward cut in front of the guard he would have prevented the interception.

Questions and Answers

My team loses the ball in the scoring zone often before it gets even one shot at the basket. Does over-eagerness cause this, and if so, how may it be remedied?

Your mention of over-eagerness is the only cue your question gives as to the cause. Perhaps a description of the same fault observed in a college game this year might prove to be the cause of your team's trouble. The college team referred to used an offense that allowed the guard to dribble towards his goal. The forwards cut down the side lines. The center went down through the middle of the court. The guard was often able to reach the foul circle while at other times he could not go quite so deep. When he was stopped, one of the forwards would cut in the rear of the defensive guard, from the corner of the court towards the basket. The offensive guard would attempt a pass to the forward and the defensive guard would intercept the ball. This ridiculous procedure continued throughout the entire first half. There was just one thing wrong with the play. It was stated that the forward cut in the rear of the defensive guard. That was the whole trouble. The forward should have cut in front of the guard. The diagram shows the path the forward took and also shows the path the forward should have taken. A mere glance at the diagram should indicate the truth of this statement. If your forwards are cutting behind

the defensive guard, when he is near the end line, have them change to a cut in front of the guard and your team will not lose the ball so often near the basket.

Question—What is the remedy when the opponents solve the set system of offensive play my team uses.

Answer—Perhaps your offensive system is too standardized. Any system of offense should be more or less elastic. When one pass, that is part of the system cannot be made safely, there should be provision for a choice of one or more other plays that the player may make.

Your question brings to mind a college game that was played this season. The offensive system of one of the teams gave a choice of two passes at one point in the advance towards the goal. The offense referred to worked in this manner: The center went down through the middle of the court. The forwards went down the side lines one on either side. One of the guards advanced on a dribble and, when stopped reversed and passed to the other guard. The second guard dribbled forward and watched for an opportunity to pass (1) to the center, (2) or to a forward. In event the center received the pass he in turn made a pass to a forward who was cutting diagonally from the side line. When the guard deemed it unsafe to make a pass to the center he would make a pass to one of the forwards. The guard then followed his pass and as he rushed by the forward he received a return pass. The guard dribbled down the side line and succeeded in going through to the basket a number of times. As the game went on the opposing team was able to stop each of these plays. Then the offensive team was forced to improvise plays after the guard had made the pass to the forward. The team scored more consistently on their improvised plays than they

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had been able to do with their set style. It should be stated that the team was composed of experienced players.

Your difficulty might be overcome if you would provide for a choice of plays rather than hold to a rigid system of offense.

Nomenclature

It has been suggested by several of the coaches who have contributed articles for the Journal that there was need of a nomenclature in our various sports. I am suggesting the following definitions of some of the terms that are most generally used in basket ball. If you have other terms or do not agree with these won't you send in your suggestion?

The Court — Playing space bounded by the two side lines and the two end lines.

Side Line—The lines on the long side of the court.

End Line—The lines on the short sides of the court.

Center Circle—A circle with a two-foot radius in the geographical center of the court.

Goal Zone—Territory at each end of the court bounded by the end line, a part of the side lines and the zone line.

Zone Line—The line extending between the side lines parallel to the end line and passing through the foul line. (The Guide designates this line as the Goal Zone Line.

Free Throw Line — The line which is part of the zone line within the foul circle.

Free Throw Lane—The space marked by lines three feet on either side of the middle point of the end line by lines extending perpendicular from the end line to the foul circle.

Backboard — Suspended boards six feet by four feet to which the basket is attached.

Basket—Metal ring attached to the backboard with a net suspended from the ring.

Foul Circle—Arc of a circle connecting with the free throw lines.

Goal—Act of scoring from the court. (Two Points.)

Free Throw—A player is allowed a throw at the basket without opposition. (One Point.)

Held Ball—When the play is stopped by the referee because two opposing players are in possession of the ball.

Time Out—Suspension of play by the referee without the loss of playing time.

A Foul—Infraction of a rule the penalty for which is one or more free throws.

Violation—Technical error which causes the referee to award the ball to the opposing team out of bounds.

Dead Ball—When the ball is out of play.

Tip Ball—The ball tossed up between two players by the referee at the center circle.

Jump Ball—The ball tossed up between two players by the referee any where on the court following a held ball.

Follow-in—Playing for rebounds off the backboard.

Re-delivery—The ball is caught on a rebound and a shot made before the player lands on the floor.

Tip-recovery—The referee tosses the ball between two players, one of the players taps the ball and then catches it.

Pivot—A player revolves finishing up facing the same direction that he faced before he made the manouver.

Reverse—A player revolves finishing up facing the opposite direction than that he faced before he made the manouver.

A Stop—A player with the ball in his possession comes to a halt.

Overhanded Pass—The ball is thrown by one hand from above the shoulder.

Double Overhanded Pass—The ball is thrown by both hands from above the shoulder.

Hook Pass—The ball is thrown from the outside with the hand

above the head or in front of the face.

Pull Pass—An underhanded pass with the fingers turned downward in grasping the ball.

Snap Pass—The ball is snapped from in front of the chest.

Slap Pass—The ball is directed by batting it when the ball is in the air.

Bounce Pass—The ball is made to strike the floor on a pass.

Side-arm Pass — The ball is thrown with the arm extended away from the body.

Lob Pass—An arched pass.

Pass-in—The ball is passed from out of bounds.

A Cut—A quick dash by an offensive player.

Set-up Shot—A player gets a close in shot with no opposition.

Push Shot—The ball is grasped with the fingers pointing upwards. The ball is delivered by an exten-

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sion of the arms upward combined with a wrist snap.

Bulling the Game—Driving into the opponents instead of playing by the use of skill and cleverness.

Hook Shot—A one handed shot where the arm swings from the outside across in front of the face.

Pull Shot—The ball is grasped with the fingers pointing downward. The ball is delivered by swinging the arms upward.

Throw Shot—The ball is thrown from both hands from above the shoulder.

Early Baseball Practice

The baseball season for schools and colleges is short, therefore the more pre-season practice a baseball player can get the better it will be for him. Where indoor facilities are available practice should start soon after the first of the year.

Battery candidates may be given real effective training indoors. A pitcher should not throw too much nor use speed at the outset. After his arm gets accustomed to throwing, he may increase his speed. The pitchers should work first for pitching form and control. Most men reporting for a try out for a pitching position are arm throwers and do not co-ordinate a body movement with the arm action. A pitcher needs body motion for control and speed and to give a smooth delivery and to lessen the jerk on the arm. It requires time and practice to get the body into the throw. The indoor work will have been worth while if the pitcher confines his practice to acquiring form and control, without working on curve balls. Half of the practice should be done without the wind-up. It requires practice to get "stuff" on the ball without the wind-up. Many pitchers fail because they are ineffective with men on bases, so they develop this knack in early practice.

The candidates for catcher will, of course, work with the pitchers. Have the catchers receive balls below the waist line with the fingers pointed downward. Most new catchers take even the low-balls with the mitt turned upwards. Unless a catcher acquires ease in taking the ball with the mitt turned downward, he will be a poor handler of low throws. On low outside balls, he will fight the ball and drop it, whereas, if he turns his mitt downward, the ball will strike the mitt from a right angle making it easier to catch. The catcher can also acquire a proper catcher's throw indoors. Even though the space does not allow for a throw so long as from home base to second base, he may get the ball up to throwing position quickly and deliver it as a catcher should, even though the throwing distance is short.

Where gymnasium floor space permits, all the baseball candidates should be given practice taking ground balls. One method is to have a batter knock ground balls. Players take turns and play three batted ground balls, throwing the ball to a man stationed near the batter. An experienced and successful coach claims this practice is better on a board floor than on an inside dirt floor. Players should take ground balls in proper form. One very important point is to have a player move to a place directly in front of the ball. The ball should not be played to the side. Get in front of it, with the feet together. Half of the bend is in the knees and half in the back. The weight should be on the balls of the feet, that is, heels slightly raised.

Bunting

Bunting practice may be held indoors, where batting practice is impossible. In a game, well placed, a bunt is very often the means by which the game is won. When the situation in a game calls for a bunt, the ability of a player to place the ball where it should go is as important as for him to deliver a hit

when that play is needed. Let us concede then, that ability to bunt is one of the important features of a ball team's technique.

There are two methods of holding the bat in attempting to bunt a ball. One is to slide the right hand, towards the big end of the bat, as far as the trade mark. In the other method, both hands are transferred to a grasp at the trade mark. In either method the grasp of the hands is loose. A firm grasp will send the ball away too fast. The arms should be held free of the body. The player's object is to place the bat in the path of the ball's flight. The bat should be held parallel with the ground. The player should aim to have the bat come in contact with the top half of the ball. The bat is not aimed at the center of the ball. If the ball strikes the bat above the ball's center, it will be

(Continued on page 50)

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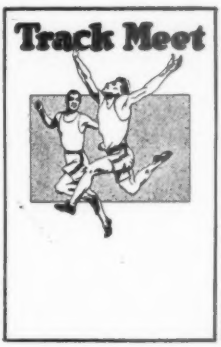

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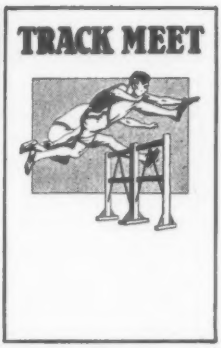

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THE AIMS OF PHYSICAL EDUCATION

BY

DR. P. E. BELTING

Director of Physical Education, University of Iowa

Dr. Belting was graduated from the University of Illinois with an A. B. degree. Later he received both his master's and doctor's degrees from Teacher's College, Columbia University. He played football at Illinois and for a number of years assisted with the coaching at his alma mater at which time he was a Professor in the College of Education. He has had experience as a player, coach, principal of a high school, college professor and now is Director of the entire department of Physical Education in a Western Conference University.—EDITOR'S NOTE.

In discussing the aims of Physical Education it is necessary to explain some of the philosophical considerations involved in the use of the terms—"value", "objective", and "aim". The term "value" is used to denote the worth of an object for its own sake—an end in itself; or the term "value" is used to denote the worth of an object as it leads to something else —a means to an end. For example, the silver dollar among my possessions is valued because of the associations and sentiments clustering around it as it was handed down to me from my grandfather. In this sense it is an end in itself. On the other hand, I may purchase a room in a hotel for the night,—in this case the coin is a means to an end. Thus a thing is of value according to the point of view from which it is seen —that is—it is an end in itself, or a means to an end. Other contrasting words such as "intrinsic" and "extrinsic", "immediate" and "mediate", and "subjective" and "objective" express the same idea. The terms "objectives" and "aims" each are frequently used in a similar way.

Aims in physical education vary from the very specific such as teaching a child to wash his teeth to the exceedingly complex such as developing good citizens through athletic games. The more specific the aim, the more directly can one shoot; hence the more specific aims of physical education are the more easily measured. Thus it is easy to tell how long it takes an athlete to run a hundred yards, but exceedingly difficult to estimate the amount of sportsmanship that is inculcated in him as a result of playing a game of football. But the broader and more general aims have more ramifications. To a certain extent the broader aims are better because they are more inclusive. If the list of aims is too long, it is very easy to become tangled and confused so that it is impossible to criticize one's own procedure. If the list of aims is too short, there is not enough chance for sufficient points of contact, different points of view, or different emphasis. Hence large portions of one's proper work may be omitted.

Educational writers of prominence from time immemorial have stated the purposes for which the school system has existed. The following table shows the similarities and dissimilarities of a number of aims of education as stated by different men:

It will be noticed that in each list of aims as stated in the table health is mentioned directly or implied. Public schools and colleges have now undertaken in a manner never before practiced, the serious devel-

opment of health and vigor. Health instruction, health habits, and health attitudes are becoming an important part of the country's educational program. Society in the United States for the first time is beginning to realize the necessity for providing nurses, doctors, suitable equipment and adequate buildings and grounds for the establishment of the most suitable standards of sanitation and hygiene among its youth.

The primary aim of a sound physical education program is the protection of boys and girls from disease and contagion and the development of bodily health and vigor. Health is an asset to a community, while sickness is a liability. For instance, the health authorities estimate that a minimum of at least 2,000,000 adults every day are incapacitated because of illness. Aside from the economic aspect, it can scarcely be imagined what opportunities in life are lost, what hopes are blasted, what ill-will is created and what troubles are engendered by ill health.

The small communities suffer even more than the larger ones. The mortality rate has fallen more rapidly per thousand population in the city than in the country. The homes in the city are more sanitary because the city had made a greater development in health standards. Progress in the science and art of living has developed faster in the city than in the country. The water supply, the sewage system, the methods of garbage disposal, heating, lighting and ventilating are better adapted to the development of health in city rather than in rural regions. Moreover, the hospital and medical service of the city are far superior to that which is provided in the country.

A difficulty with the health program in the country to a greater extent than in the city is due to the fact that the rural people more nearly approximate the individual-

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ism of the early pioneers. Farmers more than city folks possess not only the virtues of the early settlers, but some of their defects as well. Generally speaking these democratic communities have rigorously main-

Sneddin	Bagley	Bobbit	Bonser	Meriam
Physical education		Development and maintenance of physical power	Maintaining health by care of body	Health by play
Vocational education	Bread and butter	Labor of calling practical labor	Producing and exchanging necessities	Home and community efficiency
		Parental activities		Home usefulness
Social education	Social efficiency	Inter-communication citizenship	Co-operation for common good	Social efficiency
		Social relations		
Cultural education	Culture	Leisure, recreation amusement	Leisure enjoyment	Play
	Knowledge habits	Development and maintenance of mental efficiency	Knowledge habits appreciation	Knowledge habits attitudes
	Attitudes tastes prejudices			
	Ethical and moral character	Religious activities		Moral conduct
				Play

Spencer	Inglis	Dewey	Small	Kilpatrick
Self preservation			Health	Health habits and attitudes
Indirect preservation	Economic vocational	Executive competency	Wealth	Vocational efficiency
Parenthood				
Social relations	Social civic	Sociability sensitiveness to rights and claims of others	Sociability	Citizenship
Leisure activity	Individual avocation			Leisure
Knowledge of intrinsic value		Trained intellectual method	Knowledge	Knowledge habits and attitudes
Science				
Knowledge semi-intrinsic		Aesthetic taste		
Conventions			Righteousness	Moral
		Growth		
			Activity leads to further activity	

This table shows the similarities and dissimilarities of a number of aims of education as stated by Inglis, Sneddin, Bagley, Bobbit, Bonser, Meriam, Spencer, Dewey, Small and Kilpatrick. The National Educational Association has stated the aims of education as health, vocation for livelihood, worthy home membership, good citizenship, worthy use of leisure time, command of fundamental processes and ethical character.

tained the colonial doctrine of individual liberty so that they have refused frequently to interfere with each other's physical welfare. Such interference was a limitation of individual freedom.

As a result scourges like whooping cough, measles and tuberculosis have not been effectively reduced or entirely prevented. In places in the United States such afflictions are regarded as private affairs. The country has grown away from pioneer conditions to such an extent that the community, large or small, must provide group controls.

The inertia that clings to so many problems of society must be overcome if public health is to be safeguarded and developed. An intelligent and scientific public attitude must be created relative to health. The community for its own progress must find the means and the time to cultivate the physical body adequately. Society must find a

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way to make the health program one of prevention as well as inspection. However much children need remedial treatment, a more far-sighted policy will give physical and medical treatment to the strong and well in order to prevent them from becoming sick. Therefore, one of the important aims of education,—and the most important in the minds of Herbert Spencer must be concerned with health.

A second aim of education as listed in the Cardinal Principles of Secondary Education is a command of certain fundamental facts, principles, and skills that are commonly needed in life and in many of the legitimate fields of study. A fairly large body of facts and principles have been developed in physical education just as in any other subject of study. Those who devote their time to this work have developed not only a subject matter but with it a method or technique as well. Even though physical education may have its own technique, that simply implies that to be of any immediate or ultimate service the material must come from and have a direct relation to life itself. Knowledge of the structure and function of the more important parts of the body, instruction in health, the development of health habits and health attitudes and the inter-relationship of mental and physical activity would therefore justify physical education as one of the ways in which a pupil may become the master of some of the fundamental considerations of living.

It is generally conceded now that no reflections are cast on the individual if one aspect or purpose of his education is vocational or utilitarian. A classic subject such as Latin is no longer studied only for knowledge's sake, but it too has been for centuries and is now used for vocational purposes. However, when any new subject came into the curriculum it was besmirched by its opponents as vocational or utilitarian. While a few still may criticize physical education from that point of view we can dismiss that as of little consequence in a serious scheme of education. Physical education is usually indirectly and sometimes directly vocational. No one will seriously dispute the value of a sound and healthy body as it helps an individual succeed in the struggle of life. There has been and still is some question as to the direct vocational opportunity of the individual who majors in physical education. One has but to study the laws which have been passed by over half of the states of this country to see the future demand that is to be made for teachers of physical education. Municipalities and states are now searching for well qualified playground supervisors, health teachers and directors of physical welfare not only for their children, but for the entire population as well. The National Government recently called a congress of recreational leaders from all over the country in Washington to discuss and formulate adequate plans for national physical welfare and recreation. Schools and colleges are continually on the look-out for the best qualified men and women in this field to assume positions as teachers and leaders of the entire student body. From a position of neglect to one of encouragement physical education is in many places being required of the entire student body. The athletic coach is implied in the discussion of the physical education teacher. Whether it be the teacher of one form of physical education or another, his salary is generally better than the salary in any other teaching position of similar preparation, experience or rank. Within the next quarter of a century, physical education will likely reach undreamed of proportions because people not only will have the

time to receive health instruction, but they will become convinced of the increased happiness and satisfaction that will result as the body is developed and perfected. This situation presents a vocational opportunity to the teacher of physical education for a life of service without parallel in the annals of teaching.

Worthy home membership as a desirable purpose of education is and must be accepted without question. Perhaps one of the greatest assets the school can secure in its youth on reaching maturity is sound physical energy and vigor. Common observation shows how many homes are wrecked because either the man or the woman does not possess the physical strength to discharge properly the responsibilities of life. Nervousness, indigestion, and fatigue are prominent factors in causing an unhappy home.

Moreover, those who have observed the utter lack of knowledge of the physical body in preparation for parenthood on the part of the majority of youth see a large field of preparation in functional physiology. Whether sex hygiene should be taught in the schools is a mooted question. Perhaps it shouldn't be taught until the teachers of physical education can teach it in a scientific manner. Were this done but for a generation, parents themselves would have sufficient knowledge to teach their children the necessary vital facts of life.

When the teacher of physical education receives a scientific education in his chosen field of service, he will be thoroughly familiar with selection, preparation and value of different foods in relation to health and sickness. Every women who has or expects to have a home of her own should possess such knowledge and skill. One of the difficulties in the American home today is the failure in many of the women to see how knowledge and skill in the prepara-

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tion of meals leads to health and happiness of the various members of the family. Poorly selected and inadequately prepared food and carelessness in the handling and preservation of victuals are frequent causes of undernourished and unhealthy children. What children shall eat and drink, how boys and girls shall dress, and the amount of sleep and recreation they shall have are more truly problems of physical education in the home than they are moral questions.

A fifth very important problem of education is the worthy use of leisure time. The United States has been so busy in the conquest of a new country that it has scarcely had time to play. But with natural environments subdued and the emancipation of larger and larger groups of society from toil and drudgery because of labor saving devices, wholesome recreation and play will be outstanding problems in education and physical education for the next quarter of a century to solve. There is no further need of trying to justify physical education from the standpoint of recreation and play, since people generally know both the physical and moral value of these two.

One of the large aims of physical education is the development of ethical character from the practices that are moral. The care of the teeth, the preservation of the eyesight, the development of habits of cleanliness, the problems of malnutrition and recreation; what we shall eat and what we shall drink may have ethical significance.

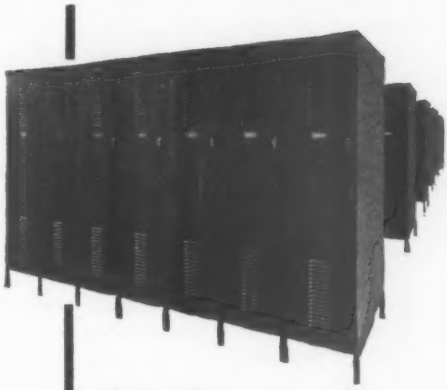
The athletic games furnish one of the best psychological situations in which to teach many of the so-called Christian virtues. The instincts of mastery and pugnacity have long been established in the human race. The fundamental motive forces that these instincts provide should not be eliminated from athletics, but re-directed toward the inculcation of such characteristics as perseverance against difficulties, tenacity of purpose, the will to overcome, obedience, self-sacrifice, subordination, co-operation, friendliness, loyalty, leadership, "ability to lose without sulking and win without boasting," a spirit of fair play, and the insistence on right as the rule in one's relations with his associates.

The athletic group rightly has held a place of prominence in the physical, intellectual and moral education of its members. The high school in insisting on clean sport has placed a premium on fairness and skill. That institution has gone a long way in eliminating a certain immoral type of athlete from the student body. As a result the ordinary athlete is no longer the "bully" who was led to believe that the best football player was the one who slugged the hardest. But the athlete now is idealized; in playing with great efficiency, he obeys the coach, abides by the decisions of the officials, and tackles the academic requirements in the same whole-souled manner.

Finally there is a direct relation between physical education and a nation's civic ideals. Ancient Greece developed a free-man's democracy perhaps for the first time in history. When one graduated from the schools of Athens the state became in reality the individual's Alma Mater. But the aim of individual excellence as a citizen was the harmonious development of mind and body. Development of one reacted on the other. Beauty, grace and symmetry of the body were as important as the same characteristics of the mind. As a result, democratic Greece attained a beauty of soul and a depth of intellect never surpassed by any other nation. Perhaps the heights to which Greece reached in architecture and sculpture would never have been possible except as she

worshipped at the shrine of the artistically beautiful human body.

The principal conception of the monastic peoples in the middle ages was asceticism. In original Greek the word signified the training, the endurance, and the discipline that were required of the athlete in preparing for competition. In the figurative sense, asceticism meant the discipline that was necessary to subject all of the desires, pleasures, and passions of the flesh so that the soul might be free for the things of the spirit. The early Christian people, unable to conquer the world on the spiritual side, withdrew from it. The highest ethical conception and the most vigorous spiritual health developed in proportion to the suffering of the body as the seat of all natural and material desires. The means used to realize that end were fasting, doing penance, mutilating and scourging the body and engaging in hard and severe forms of labor and physical contortions. Some of these people lived in the desert, dwelt in wells, housed themselves on the summit of pillars, deprived themselves of the necessary food and sleep, wore little or no clothing, neglected to bathe or care for the body in any way, bound their legs and arms with ligatures, loaded the body with chains and weights, slept on beds of stone, walked barefooted over the icy cold stones of the ancient monastery to the altar, and covered their bodies with ashes for the purpose of disciplining the flesh in order to develop spiritual health. Civilization today has not entirely escaped from this conception of physical destruction. When knighthood and chivalry were the civic ideals of the past, the mode of exercise and the type of game suggested the knight in armor equipped with the lance and the battle axe, as he rode in the tourney in leisurely pastime or in



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preparation for the more serious pursuit of war.

At the present time two conflicting ideals of government are struggling for supremacy. The one is autocracy; the other, democracy. The former has exalted the state; the latter, the individual. In the first, citizenship is conferred on the people by the sovereign; in the second, citizenship is a right inherent in the people. Physical education has played a prominent part in either instance. Autocracy consciously has utilized the physical prowess of the nation for war. Might makes right has been the accepted slogan. If the state is sovereign and can do no wrong, the individual is expressed in that superimposed entity. Consequently the educational ideals which include physical education of that type of society is to make leaders and followers—classes and masses. Especially the latter and by far the larger group have physical and military training for the purpose of making submissive, obedient, disciplined and patriotic citizens and soldiers.

The United States has committed itself to democracy in government and society. The educational and physical educational ideals are sharply contrasted with those of autocratic countries. While it is true that leaders are necessary it is equally certain that the level of intelligence of the great masses of people must be raised. Instead of submission and obedience to a few leaders chosen by the accidents of birth and wealth, freedom and equality require that leadership come only as a result of merit and ability. Team games in contrast to military and formalistic drills characterize the system of physical education in this country. A team in reality is but one of the groups of society that go to make up our democracy. In reality the team is one of the best examples of a social group in miniature. There is the widest opportunity for each individual to use his own individuality and prowess from which he receives his own reward. Then he must also work for the team as a whole and relate his efforts to the purposes of the entire group. The team then is more than a number of separate individuals; it is an organic unit. This organism furnishes an opportunity not only to make better individuals but also in making better individual players it is making a better team.

Democracy has come to be a symbol of opportunity. America above any other country has furnished a richness of opportunity that has led the people of the United States into many channels of success. Our children from tender years onward catch the vision of achievement in games with a result that it meets with the approval of their fathers and mothers. It is no wonder then that with social sanctions our athletic teams want to win.

The ideal of winning is a legitimate ethical conception which in itself is not worthy of criticism. To have taken away the tremendous ideal of winning would have deprived society of many of its great achievements. Business, governments, churches, homes, schools, have ever been desirous of success, but these institutions at times have used wrong methods for the accomplishment of success. Society should condemn the methods employed, because mankind has held before it the conception that the end never justified the means. If coaches, likewise, use wrong methods the remedy is in the reformation of the methods used and not in the elimination of the ideal of winning. To win, but by fair means, is a moral practice worthy of us all in our social relations.

This article has reviewed some of the philosophical considerations

underlying aims and it has compared the purposes of education as seen by a number of prominent writers. The seven aims of education as stated by the National Educational Association, namely—health, command of fundamentals, vocations for a livelihood, worthy home membership, worthy use of leisure time, the development of ethical character and civic ideals were each analyzed in relation to physical education.

In conclusion it should be especially noticed that the preceding discussion deals with the aims of education. Since physical education is but a part of education the same general aims should be the guides. This consequent overlapping is not a fault but a virtue inasmuch as the aims are but points of departure for the development in the pupil of what Dewey means by Growth—the complete and worthy living of all youth.

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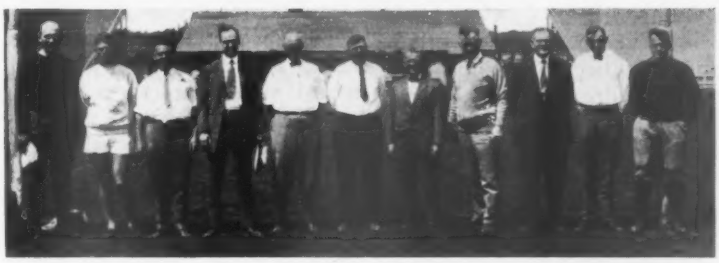

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HEALTH EDUCATION

BY

GEORGE T. STAFFORD

Mr. Stafford believes that some confusion often exists in departments of Physical Education because in the matter of physical diagnosis physical examiners often encroach upon the field of the medical profession. Mr. Stafford, as Assistant Professor of Orthopedics and Physical Diagnosis at the University of Illinois, is well qualified to speak on this subject. —EDITOR'S NOTE.

Up to 1900 physical education failed to keep up with the various contributions of medical science and apply them and thus failed as a health measure. Today physical education is considered as an essential part of health education only in so far as it keeps abreast of the times. Since 1911 a great deal of stress has been given to "Health Education." The aims of this movement are as follows:

"1. To instruct children and youth so that they may conserve and improve their own health.

2. To establish in them the habits and principles of living which, throughout their school life, and in later years, will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family and community life.

3. To influence parents and other adults, through the health education program for children to better habits and attitudes, so that the school may become an effective agency for the promotion of the social aspects of health education in the family and community as well as in the school itself.

4. To improve the individual and community life of the future; to insure a better second generation, and a still better third generation; a healthier and fitter nation and race."*

The physical educator and coach must be cognizant of this movement as a vital part in his program of physical education. The school authorities must recognize the necessity for health teaching in the curriculi. Parents must be taught the importance of this work. The child must be worked with and his interest aroused in better health.

The worth of the present system of education is measured largely by its product. The present army of over twenty-five million school children represent the future of our nation. Even a superficial study of existing conditions will reveal an alarming percentage of physical imperfections in the average school group. It is to prevent a further increase in this percentage of physical imperfections and to eradicate the existing imperfections and defects that gives Health Education its place in the scheme of education.

What is wrong with our present system of education? From the mental aspect there is little to criticize, but from the physical and moral viewpoints there is need for vast improvement. A student must do something more than acquire knowledge, no matter how important knowledge may be. Hygienic habits of living, which promote happy, robust health, must be correlated with the other subjects in the curriculum.

Public opinion is demanding that more attention be given to health. The public is slowly becoming actively aware of its low health standards. It has aroused itself from the comfortable philosophy which formerly allowed a person to believe that his or her "afflictions" were sent by the Divine hand. Even the modern flapper will soon realize that

*Report of the Joint Committee on Health Problems in Education.

high-heeled shoes and violations of the fundamental principles of body mechanics are the chief causes of her foot weakness—and not the wishes of an unjust God. Health is slowly but surely becoming "fashionable." It behooves the physical educator to get in step with the health parade.

One of the most hopeful signs of progress in the last few years is the interest and activity along "Periodic Health Examination" lines. The average intelligent adult is realizing that it is an economic investment for him to take stock of his body each year and to make whatever corrections that are needed to keep a reserve in his bank of health. The next move is to have the school child and the pre-school child examined each year so that he may grow to the full power of his manhood without being constantly handicapped by the defects and diseases which are now common to children.

More attention must be given to

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the health of the school child. The impressions of childhood are tenacious. It is necessary that children be guided in proper health habits; be given a thorough understanding of fundamental principles; and be instilled with ideas of healthy bodies as moral obligations to themselves, their homes and their country. The child is a fit subject for health instruction. He delights in the knowledge of the simple things which relate to his daily activity. In younger children habits are not yet entirely formed and it is as easy to teach proper health habits as it to allow the child to fall into incorrect and harmful habits.

The primary aim of health education is to give health its rightful place in the life of the child. Such an aim works to give the proper training and instruction that will assure healthful living through childhood, adult life and old age. The American Child Health Association of New York has written extensively on this subject. The following is their offering as positive health habits:

1. A full bath more than once a week.
2. Brushing the teeth at least once a day.
3. Sleeping long hours with windows open.
4. Drinking as much milk as possible, but not tea or coffee.
5. Eating some vegetables or fruit every day.
6. Drinking at least four glasses of water a day.
7. Playing part of every day out of doors.
8. A bowel movement every morning.

Contributing factors in the program of health education:

1. Publicity campaign: Nothing can be done in the way of health education that borders on the compulsory or dictatorial. The community must be aroused to interest in the existing conditions and this interest and attention awakened by the desire for better health.

2. The Pre-school child: Too many children enter school with defects and diseases. It is necessary to set aside a specific time (May and June) for the examination of pre-school children. This allows the mothers sufficient time before September to have the various defects and diseases cared for so that the child may enter school in good physical condition.

3. The school child: Health examinations upon entrance into school detect various diseases and defects which, if not cared for, seriously interfere with a child's progress in school. The school is often blamed for the health conditions of its children. Unless parents insist on a careful medical examination of their children and do all in their power to have existing defects and diseases corrected or cured, the schools can hardly be blamed for the low health standards of its children.

Parents must realize that education in the schools does not take away from the parent all responsibility for the health of the child. The parents must do their share to safeguard the health of their children. A more enlightened understanding on the part of the parents will often raise the health standard of the entire school. Many parents are selfish for their children's education. e.g. The child has a slight cold and the parent is not willing to allow the child to lose its schooling. It is sent to school and often infects other children because that "slight cold is whooping cough" or some other disease.

4. Follow-up work. Nurses and physical educators must take care of the follow-up work as it comes within their scope of activity. The nurse acts as an assistant to the physician in the care of those who are in need of medical attention and the physical educator takes care of those who are in need of special exercises. Every examination re-

veals a certain number of defects and diseases which must be corrected if real health work is to be successful.

Physical educators are often lax in their treatment of those who are not potential athletes. More attention should be given to the flat chested individual and the undernourished child so that these children will enjoy more abundant health and vitality. The correction and prevention of abnormalities due to bad posture, malnutrition and preventable defects are just as much the duty of the physical educator as the production of winning teams.

Special Classes and Clinics:

a. The Nutrition Class. Each school should have provisions for the care of those children who are undernourished. These provisions necessitate first, a scale in every school, second, monthly weighing and measuring of each child and third, the proper correction of hy-

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gienic habits so that further malnutrition will be prevented.

b. Open-Air Schools. Undernourished children and those who have tuberculosis should be taught only in open-air schools. The results, where such schools are in operation, show marked improvement in color, weight, mental and physical activity, and attendance at school.

c. Posture clinics. Poor body mechanics and faulty posture are embarrassing to the function of the vital organs of the body and often cause ill-health. These clinics may be conducted by the physical educator.

5. The physician and dentist are of paramount importance in the health education movement. It is the initial work of the physician and the dentist in detecting defects and diseases that starts the movement on its way. Their assistance in correcting many of the diseases and defects further make them the vital parts of the health education program.

6. Cooperation of teachers and parents, and community. Teachers must be taught their responsibility in the health movement. Teachers in good health are better able to carry-on with their daily tasks and this better health is a good example for the children. Parents who are intelligently healthy are cooperative in keeping their children healthy. Unfortunately, parents are not generally healthy. They are poor examples of health. Physical education must carry its program into the homes and awaken parents to the need for better health. A wide-awake physical educator can do a great deal to arouse the community spirit for better health and sanitation. More healthful conditions thruout the community mean better health for the school child, better attendance at school, better attention while in school, etc.

The Bureau of Education, Department of the Interior, Washington, D. C., has published a number of Health Education Bulletins which should be in the hands of every physical educator. These bulletins explain in detail the various methods of working out the health education program. The American Child Health Association, 370 Seventh Ave., New York, has a number of pamphlets on child health which are very helpful.

In working with children it is necessary to use concrete illustrations which convey the health messages to the child in a language which is easily understood. A poster of a chubby boy drinking a glass of milk and the wording "Milk for Health and Strength" is a better health lesson for the average child than a dry lecture on the protein content and the vitamin "C" and its anti-scorbutic properties.

Scrap books, pageants, plays and other concrete things are used to allow the child self-expression in activities which portray healthy living. In the lower grades the old Mother Goose songs are paraphrased to teach health lessons. In the upper grades some of the popular tunes are used for songs which tell about healthy living, good posture, etc. The whole idea is that of correlating health with all the various activities and studies which occupy the child's school and play hours.

It is with the above in mind that the writer brings an important phase of health education which has its culmination in a big festival on May first. This is the day in which child welfare and health activities of the year are demonstrated in athletic events, health parades, poster exhibits and displays in the store windows. The theme of the entire story is Child Health. The average school child looks forward to this day when HE performs before the admiring crowd, in about the same manner as the very small boy looks forward to the magic visit of Santa Claus. The Promotion Department

of the American Child Health Association will cooperate with any physical educator who is interested in putting on a real health festival on May first.

Free Throwing

(Continued from page 18)

a great deal to do with the shot. The ball should be held lightly in the fingers, not in the palms of the hands, and should be held at the middle. In the under hand method there should be a slight upward motion of the wrists as the ball is released to impart proper english.

Foul shooting can be improved and every coach should make his men average their sixty per cent in each game. It helps to cut down the penalties and makes for a cleaner game and also increases the points your team scores.

Question: Should a pole vaulter in his run for the take off carry the forward point of his pole high or low?

Answer: He should carry the pole low enough so that he can plant it in the planting pit without lost motion.

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CHATS WITH COACHES

Mr. Arthur Murray, Director of News Service, The College of Wooster-Wooster, Ohio, has very kindly contributed the following article by Professor Remp:

The college varsity athlete more than holds his own as a student is the conclusion deducted from a paper read by Prof. Martin Remp, head of the department of Psychology of Wooster College, at the annual meeting of the College Physical Directors' Society at Hotel Astor during the holidays. Prof. Remp declared:

"The varsity athletes have the highest scores at all levels of scholarship."

"The difference between the athlete and the non-athlete is greatest at the lower levels of scholarship."

"The football men are better than the non-athletes at the lower levels but fall below them at the higher levels."

"The Scrubs (men who did not make the varsity team) are between the non-athletes and the football men."

According to the Army Alpha test which was given to three classes at Wooster College, the intellectual capacity of the varsity athlete was the greater. Football men, as a group, ranked below athletes as a whole but were higher than the non-athletes.

In scholarship the athletes and the non-athletes ranked practically the same for grades above C plus (about 85). Most of the athletes get grades of C (70 to 84) while most of the non-athletes are D students (60 to 69). Here is found the great mass of college students.

Dr. Remp also made a study of the attendance of college students and found that the athletes have the best record for school attendance. The total enrollment of men at Wooster College for 1922, 1923 and 1924 was 785. It was found that 27 percent dropped out at the end of the first year for various reasons, 24 percent at the end of the second year and 4 percent at the end of the third year leaving 45 percent who remained to be graduated.

A rule in the Ohio Conference bars participation in varsity athletics by first year men. Omiting first year elimination the following figures show just which men quit college and who complete their work.

All College—Sophs quit, 30%; Juniors quit, 5%; Seniors complete work, 60%.

All Men — Sophs quit, 30%; Juniors quit, 11%; Seniors complete work, 59%.

Non-athletes — Sophs quit, 36%; Juniors quit, 11%; Seniors complete work, 53%.

Varsity Athletes—Sophs quit, 10%; Juniors quit, 12%; Seniors complete work, 78%.

In "staying qualities" the varsity group excels all others.

Summing up, then, it would seem that brains are required for college athletics quite as well as brawn. It would also seem that that invaluable lesson of sticking until the game is over is so well taught on the athletic field that the varsity athlete carries it through to the finish and wins his college diploma.

Mr. Gosnell Layman of Columbus, Ohio, has the following worthwhile suggestions to make regarding High Jumping:

CHANGING THE FORM OF HIGH JUMPERS

"I am sure that every High School and College Coach has been confronted with the problem of changing the form of a high jumper, who could clear a good

height by using the old scissors jump.

"Some argue that it is not best to change them, while others will change them without hesitation. It is the writer's belief that even if they fail to jump as high by the use of one of the standard forms, the moral effect on the future athletes is well worth the effort required.

"'What style shall he use if he changes?' is the natural question. Let him try both and use the one for which he is physically adapted. The writer has experimented with both and will try to give some brief conclusions derived from observation.

"Most jumpers will prefer the Western Form for the following reasons: It seems more natural to approach the bar at a 45 degree angle since that is the same run used in the scissors. They merely change the side from which they run. There seems to be fewer things to remember in order to execute the jump properly. They do not seem to land in the pit so hard as they can turn slightly and land on their hands and feet, thereby lessening the chance for injury.

"If they attempt the Eastern Form they become confused in the run and turn as they go over the bar, and this requires a good deal of practice to master. Very few of them master the cut back, which pulls the body away and causes them to land facing the bar.

"It is very simple to explain that in the Western Form the jumpers land on the same foot they take off from while the proper kick, which straightens the body over the bar, seems to come natural to most of them. The only difficult thing is to teach them the proper lay-out above the bar, as most of them want to go over with the trunk higher than the hips and feet. This may be overcome by causing them to jump between two crossbars, the

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top one lighter so it will not injure them if they hit it.

"With an athlete, who has never jumped, the Eastern is probably the easiest to master since there are no bad habits to overcome. The writer had one converted jumper who used the Eastern Form indoors and the Western outdoors. He could land on the mats better using the Eastern style than the Western.

"It is the writer's opinion that the average high jump is behind the records of the other field events. The only solution, as he sees it, is to educate the Coaches to the proper forms, and insist that they force the athletes to use them. Occasionally we find a jumper, who can clear a good height by the use of the scissors, but he could clear a much greater height by using one of the standard forms. It took a stinging defeat by one less physically equipped, to change Robusch, of Pittsburgh, who won the high jump at the Penn Relays in 1924. He mastered the Eastern Form in two weeks and won the State Interscholastic with a much higher jump than was humanly possible using the scissors.

"The Ohio Interscholastic Champion in 1923 and 1924, who cleared six feet by using the scissors, is now jumping well over six feet, as a member of the Freshman Track Team at Ohio State University. He is well equipped for a high jumper, standing over six feet, and is well developed with a wonderful natural spring. He is using the Western form and does not seem to encounter any difficulties with it."

Supervision of a Team Through a High School Elimination Tournament

(Continued from page 13)

practice of "trying out" a strange court by a team playing but one game and there is much more to be said in its favor. For tournament competition this tendency to burn up energy unnecessarily is to be deprecated.

Along this same line I advise against allowing a group of players to watch their opponents play. Almost all of the player-spectators will become so interested in the actual outcome of the game being witnessed and will become so partisan and so tense with excitement, that they will have the "all in" feeling of the ordinary spectators after watching the game for a while—again a waste of energy. Against this, some coaches set the advantage of having their boys learn of their opponent's style of play. In my experience, that is just a little less than no advantage at all. I have never yet sent a player, or for that matter an ex-player with no experience in scouting to watch and to report on a prospective opponent's style of play, but that he prophesied on his return an overwhelming victory for us. The other fellow always "looks rotten" to partisan eyes and allowing one's team of high school boys to sit in judgment on their prospective opponents is one of the surest ways of creating overconfidence.

(4) *When to Substitute* is a much mooted question. Since Coach Rockne popularized the "shock troop" stunt of leading off with a second team of good defensive strength, and winning, regardless, against the best of them, we now have "shock troops" in basketball, on every hand. It is perhaps fortunate that Rock's gang did not wear green ears! "Shock troop" methods proved to be winning ones in the game of football, where every scrimmage may result in the loss of a man through injury, and where for well over an hour the men are fiercely engaged in personal combat often under severe weather conditions which tend to exhaust them further. Rockne's defensive team, while glibly termed "subs," was an aggregation of football players of worth, all carefully coached by a

master hand and fully capable of giving almost any college team in the country a merry battle. If a basketball coach could send into a play a comparable defensive outfit, which will rarely be the case, the different character of the game of basketball still would make such a procedure very hazardous. A fierce defense, in football, can hold the score down close to zero for many minutes almost with certainty but it can not do so in basketball. In football the minutes so conserved for the regulars are of great value in the matter of staying power and in freedom from injury, while in basketball the ten or fifteen minutes so saved are of little moment if gained at the expense of a handicap of ten points or so. Any mature basketball player should be able to go at top speed for two full halves and crippling injuries rarely occur. On these premises I vote the best use of a substitute and essentially defensive team, to be in basketball, to retain a lead already secured by the first string men. In other words, I should say to reverse the "shock troop" policy and to send the subs in only after a lead has been gained.

(5) During a tournament the players should drink very freely of water to ensure good elimination of waste products and to aid in replacing the large amount of fluids lost through exercise. Massage of the limbs materially reduces the soreness and restores the spring to the muscles so that a good rubber is of much greater value to a team in a tournament than in the regular season.

These on the whole, constitute the major points, other than about actual playing technique and team methods, on which the younger coaches express diverse opinions. Methods of play and of training are rapidly becoming standardized in the various sections of the country, to the great advancement of the game.

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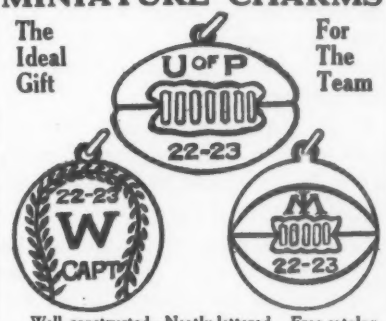

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A Year's Course in Physical Training

(Continued from page 22)

9. Running in place with raising straight legs forward.

10. Breathing.

Practice in Proficiency Aims

Practice of the various activities in squads. The best students may act as leaders and make demonstrations and give suggestions. A record should be taken from time to time to notice development.

Game

Members of the class should have practice in the more or less higher organized games such as volley ball, indoor baseball and basketball. To make competition more keen, regular teams should be formed in each class and a schedule drawn up. In volley ball, for example, two or three nets can be fastened together and placed lengthwise in the gymnasium with jumping standards for support in the middle. Three games can then be going on at the same time. In arranging your schedule, provide for officials among the members not playing.

It is important to stay on one game until a fair degree of proficiency is developed so that interest in that game will carry over.

Schedules may be drawn up for (1) teams in each class, (2) between teams of other classes and (3) a series between winners of each class.

In drawing up a schedule work out all the possible combinations and then place the games in the order wanted. A six team schedule for playing once around would have 15 games as follows:

1—2				
1—3	2—3			
1—4	2—4	3—4		
1—5	2—5	3—5	4—5	
1—6	2—6	3—6	4—6	5—6

Basketball and Baseball

(Continued from page 29)

deflected to the ground. A bunted ball going into the air causes an offensive team much grief.

A method of practice is to have a pitcher throw at medium speed. As the ball is delivered, the batter takes a short step forward with his front foot and at the same time, he should shift his hand and carry the bat forward shoulder high. He should break slightly at the waist, and have his knees slightly bent. Let it be understood that the batter will bunt only balls that are strikes, then from the position he has assumed he would not carry his bat higher, but should not make an attempt at the ball if it is above the height of his bat. He should of course follow downward with his bat held in a lower plane in attempting to bunt low balls.

Some common faults of players learning to bunt are, pressing the elbows against the body (this takes away the free use of the arms); striking at the ball with the bat and grasping the bat too firmly; failure to take the bunting position early enough. Teach players that they are to attempt to bunt only balls that are strikes when playing for a sacrifice. The base runner must also know that he should advance on the bunt and not on the pitch. If this rule is not enforced sacrifice plays should be discarded. It would be better to execute a straight hit-and-run play than a so called sacrifice unless the rule just mentioned is observed.

When attempting a sacrifice hit, do not try to conceal your intention, take a bunter's position at the time the ball is delivered. Your job is to deliver a well placed bunt that will advance the base runner. When you intend to bunt to get on the base yourself, conceal your intention until the last possible moment.

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Evolution of Team Defense

(Continued from page 6)

opponents, who charged through one zone into the territory of another defensive zone and by so doing gave the offense an opportunity for close-up shots.

When playing this style of defense, the other two players were free to shift about for open spaces from which they might receive passes when their team recovered the ball. But it was not long until the need for a still tighter defense was apparent.

In order to extend the defense farther out toward the center, to reduce the territory that each player must cover, and at the same time to make the circle of defense about the basket still tighter, a fourth man was called back to aid in the defense, thus leaving only one player to shift about the court to the unguarded spots and to be ready to receive long passes from team mates. This plan of defense came to be known as the four-man box defense. This style of defense is shown in a typical form in Diagram 2-B, which is drawn to scale.

In this form of defense, the two guards □4 and □5 always played back. Seldom did they go past the center of the court except to receive a pass for a long shot. In such case, one guard stayed back while the other went up. In no case did the rear guard let an opponent play in behind him. Note in the diagram the position of the guards when thrown on the defensive. The moment possession of the ball was lost, the guards dropped back to these positions. The forwards hurried back to the positions shown by □1 and □2.

As the opponents brought the ball down the court, the first two men who went through the defense were covered by the two guards, and the next two, by the defensive forwards. The forwards, as they rushed back to their defensive positions, might each "pick up" an opponent and stay with him until the ball was recovered.

The fifth defensive man usually stayed back to guard the shifting center, who remained in the territory of his own goal. Thus, with this type of defense, a four-man of-

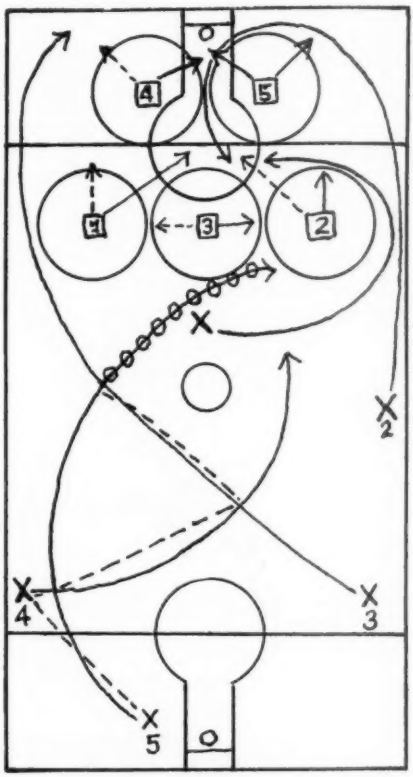

Diagram 3
Set five-man Two-line Defense.
This diagram shows the many variations of the massed five-man defense. This is the last stage in the evolution of the defense.

fense was all that was possible. The defensive center was usually chosen for the back court work because of his range and height. When his team mates recovered the ball, if he was unable to get far behind the player guarding him, he came up the court to meet all passes made to him and then either turned and shot or passed to one of the offensive forwards who had rushed down the court.

This type of defense was used quite generally as late as 1919 and still is used to some extent. For instance, some teams who use the five-man defense advance one player, —usually the one opposite the side where the strength of the offense appears,—so that when the team on defense recovers the ball this player in advanced position can dash quickly for his own goal and into a position from which he can receive a long pass, or can come back up the court to meet the ball and be ready to pass to an open spot.

The four-man defense gave way to the five-man two-line set or mass defense, principally because of the continued development of the zig-zag, criss-cross, and the revolving plans of offense. The floor space that four players were required to guard was too great a handicap for the defense to be able to meet the new offensive developments successfully, even though a four-man offense was all that was possible against this defense. On narrow courts, the four-man defense can still be used effectively.

The advent of the five-man two-line set or mass defense marks the full submission of the adherents of offense only, to the importance of a strong defense. It also marks the beginning of an impenetrable defense which is the beginning of the greatest perfection in defensive play.

Diagram 3 shows the general set positions for the five-man defense as practiced today. Most all successful present-day defensive methods are variations of this formation. Many coaches place their primary wall out near the center of the court and advance the secondary defense proportionately. The reason for this advance of the two defensive lines is to prevent any possibility of a shot over them and also to meet the offense before it has had time to form. The defensive lines should be so far out toward the center of

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the court that scoring shots over them will be of small percentage. The greatest danger to which the defense is subjected from this type of formation is that the offense will send men behind both defensive lines and then pass over them; or that the offense will draw the secondary defensive line back by sending two men through and then pass over the primary line to a player who has slipped behind it.

National Interscholastic Basketball Tournament

(Continued from page 10)

contact with people from various parts of the country and by the trips which the University of Chicago gives the boys while in the city.

Extreme precaution is taken by those in charge of the meet in the physical welfare of the boys. The games are arranged so that no teams are required to play more than one game a day except those teams in the finals. Each game of the respective teams is separated by 24 hours, thus eliminating the physical strain which is prevalent in a great many tournaments.

Realizing the great diversity in the interpretation of basketball rules throughout the United States, those in charge of the tournament have secured the services of Mr. Oswald Tower, who is a member and Editor of the Joint Basketball Rules Committee. It is their hope that through his observations at the Tournament and the contact which will be afforded with the coaches and players, a greater uniformity in rule interpretation can be accomplished. Mr. Tower will act as Chief of Officials, will have numerous conferences with coaches and other officials and as a result of his efforts a more healthy condition should exist next year.

One of the most worth-while results of the University of Chicago National Interscholastics is the support which it administers to the state athletic organizations which are fostering a standardization of good, clean, wholesome rules of eligibility. This event furnishes helpful momentum and has a great influence in creating sentiment in favor of a high standard in high school eligibility rules and in seeing that they are adhered to. No team is allowed to participate which is not in good standing with its respective association.

Too much praise cannot be given to the high degree of sportsmanship manifested by individuals and teams in the past tournaments despite the fact that each contest was intersectional in character and consequently was played with tremendous intensity. It was indeed inspiring to observe the boys cleanly fighting in loyalty to their schools and in fealty to their respective states, striving to bestow victory upon these. In every case, without exception, however, they were thorough Americans meeting victory modestly and defeat courageously. It could be clearly observed that the National Tournament is instrumental in breaking down sectional provincialism and promoting sportsmanship of the finest type.

Question: What is the National Federation of State High School Athletic Associations?

Answer: As the name implies it is a union of State High School athletic associations. At the present fourteen or fifteen states are members.

Question—Should a man be set when the starter fires his pistol and then fires again for a recall?

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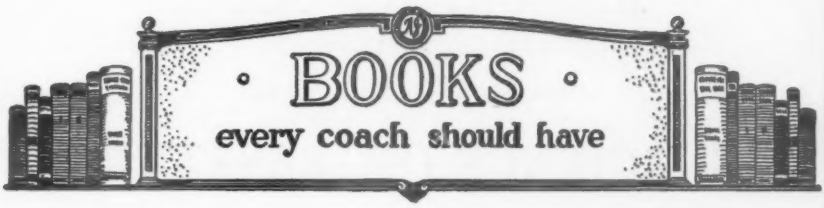

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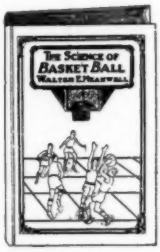

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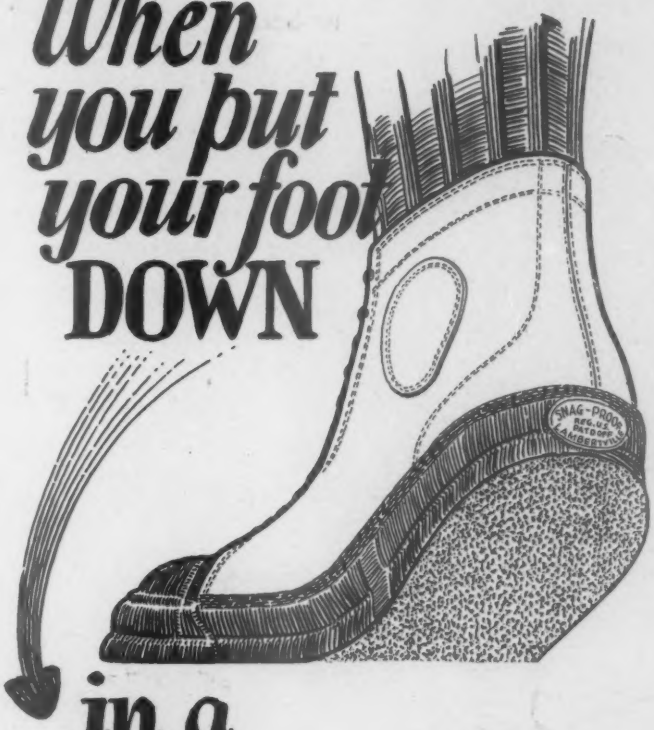

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